

STAFFORDSHIRE COUNTY COUNCIL.

---

# ANNUAL REPORT

OF THE

MEDICAL OFFICER OF HEALTH,

GEORGE REID, M.D., D.P.H.,

FOR THE YEAR 1913.

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STAFFORD :

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1914.



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# STAFFORDSHIRE COUNTY COUNCIL.

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## ANNUAL REPORT OF THE MEDICAL OFFICER OF HEALTH,

Presented to the Council at the Quarterly Meeting,

November 10th, 1914.

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In this, my Twenty-fifth Annual Report, I propose to adhere, so far as collating the reports of District Medical Officers of Health is concerned, to the general plan adopted originally, and deal with the various reports under subject headings, in place of devoting a special summary to each.

I have again indexed the report, so that each question dealt with, whether of general or special significance, may at once be referred to.

In the "Summary of the Year's Work of the Public Health Committee of the County Council," I have endeavoured to convey some idea of what has been done during the year in public health work, more with the view of indicating the lines on which the Committee are proceeding than in the hope that such a condensed account can convey an adequate idea either of the work itself or the good which has attended it.

As regards my duties as School Medical Officer, a full report on the year's work has already been presented to the County Education Authority, and to the Board of Education, and, so far as this report is concerned, reference to that work will only appear in commenting upon such of the reports of local medical officers of health as contain paragraphs bearing upon the question from a local point of view.

G. R.



SUMMARY OF THE YEAR'S WORK OF THE PUBLIC HEALTH  
COMMITTEE OF THE COUNTY COUNCIL, WITH GENERAL  
COMMENTS ON PUBLIC HEALTH ADMINISTRATION.

As regards the summary of the work of the Public Health Committee, I would point out that the year embraces a period of twelve months ending June 30th, 1914, as the last summary covered the ground up to the end of June, 1913. So far as that portion of the report which deals with the reports of district medical officers of health is concerned, the period covered embraces 1913 only.

The routine work under the Rivers Pollution Prevention Acts has proceeded on former lines. The systematic work of inspecting existing sewage disposal works has gone on uninterruptedly, and each year, as new works are completed, more and more time has to be devoted to this part of the work.

As regards sewage effluents, while special attention is directed to recently constructed works, the works which have been thoroughly established are by no means overlooked. All are systematically inspected by the County River Inspector, who at once reports to me any irregularities he observes. Needless to say, his visits are surprise ones, no previous notice being given of his intention to visit, and it speaks well for the good faith of the local authorities that his visits are hailed with appreciation rather than resentment.

It is customary to call the Public Health Committee's attention at the time to any serious irregularities which are noted in the management of sewage works, and the responsible Authorities in such cases are invariably communicated with. Many lesser irregularities noted, however, are satisfactorily dealt with by myself, without troubling the Committee, by merely calling the local surveyor's attention to them.

To comment at all fully on the action taken during the year in the matter of rivers pollution would require more space than can well be devoted to one subject in a summary of this description. Still, it may be useful to refer, shortly, to the more important questions in this department of the Public Health Committee's work which have received attention.

As regards the condition of the river Tame as it is influenced by the disposal of the sewage at the Tame and Rea Drainage Board's works, the improvement recorded in previous years has been fairly well maintained.

As regards the districts which drain into the Tame above the Drainage Board's area, further progress has been made, and I am happy to be able to state that the new and extensive works at Walsall have been completed during the year and are now in full and satisfactory operation. In my last year's report I called attention to regrettable delay which had occurred in putting in hand the new sewage disposal works for Darlaston, but the difficulties which hitherto delayed progress have now been overcome and a loan of £15,570 for carrying out the work has been sanctioned by the Local Government Board.

As regards the new works at Willenhall, which have been in process of construction for a considerable time, nothing further remains to be done except filling the filters with filtering material. It is difficult to say who was responsible for the delay, but the Surveyor informs me that pressure has been brought to bear on the contractors and that the new tanks were brought into operation at once pending the filling of the filters.

From the new works at Bilston, Wednesbury, Oldbury, and Tipton, good effluents continue to be discharged, and as regards the last-named district the quantity of sewage brought to the new works is increasing as the house connections are being constructed. At the present time 3,000 houses have been connected representing a population of 12,100.

As regards the county borough of West Bromwich, I pointed out in my last annual report that there were indications that the sewage disposal works were becoming over-taxed, and stated that the Corporation would soon have to consider a scheme for extending the plant. Recently this matter has been the subject of communications between the Public Health Committee and the West Bromwich Corporation, with the result that the Borough Surveyor has been instructed to prepare a scheme.

Perhaps the best testimony as to the improvement in the quality of the river Tame resulting from the large expenditure on disposal works during recent years is the experience of the Trent Fishery Board, from whose report, dated March, 1914, I have extracted the following quotation :—  
“ Fishermen report improved sport in the Tame, and the Birmingham Angling Association in 1912 sold 246 tickets for fishing in that river. In 1913, 600 tickets were sold.”

As regards Brierley Hill, which was sewered within the last few years, the outfall sewer being connected with the Upper Stour Valley Main Drainage Board's works, considerable delay took place in connecting the houses with the sewers, but I am glad to say that 75 per cent. are now connected and the work of connecting the remainder is progressing satisfactorily.

As regards other parts of the County, where, for various reasons, as the Council are aware, the sewage disposal problem received earlier attention, good effluents continue to be discharged from nearly all the modern works.

The provision of a sewage disposal scheme for Audley has hung fire during the year owing, it is said, to anticipated difficulties in carrying out the scheme as framed by the Engineer who was called in to advise. The delay has been the subject of correspondence between the Public Health Committee and the District Council which culminated in a meeting of representatives of the Council at which I was present, with the result that the Engineer has been instructed to prepare final plans for submission to the Local Government Board.

As regards sewerage of Endon village in the Leek rural district it would seem that matters have advanced to a point which will enable the carrying out of the work. The necessary land has been acquired at a price fixed by arbitration, and the Engineer has been instructed to prepare details in order that tenders may be obtained.

As regards the question of dealing with dairy waste from certain works at Uttoxeter, and the provision of a sewerage scheme for the village of Rocester in the Uttoxeter rural



district, the position is still unsatisfactory and both matters are receiving the attention of the Public Health Committee.

With reference to general sanitary questions, the work of systematic inspection of urban districts has been continued throughout the year, and the following districts have been added to the previous list of those which had been inspected and reported upon in detail, namely :—Cannock, Tipton, Rugeley, Brierley Hill, and Rowley Regis. In the case of those districts which had previously been reported upon, it is satisfactory to find from the annual reports of the medical officers of health that considerable good has resulted and that greater activity is being displayed by the authorities in the direction of securing improved sanitary conditions.

During the year an exhaustive report was prepared, at the instance of the Local Government Board, setting forth the position in the administrative county as regards isolation hospital provision, and communications were sent to those authorities which had made no provision or inadequate provision urging them to consider the question and inform the Public Health Committee as to their intentions. The replies from these various authorities were considered by a special Sub-Committee, who made certain recommendations, including the formation of certain joint hospital areas. In my next year's report I hope to be in a position to show what has resulted from this action.

Arising out of my annual report for last year, many matters have been dealt with affecting the following 16 districts :—Bilston, Darlaston, Newcastle, Quarry Bank Rowley Regis, Stone, Tamworth, and Tettenhall urban districts, and Blore Heath, Cannock, Leek, Lichfield, Seisdon, Stafford, Stone, and Tutbury rural districts.

It will be remembered that an effort was made some years ago to induce authorities to include ophthalmia neonatorum among notifiable diseases, and to make provision for dealing with such cases. As the result of this movement, notification was secured in more than half the districts in the administrative county embracing over 70 per cent. of the population, compared with only 8·3 per cent. throughout

England as a whole. This disease has now been included among the diseases compulsorily notifiable, the Order coming into operation in April, 1914.

It is satisfactory to be able to record that among the 53 cases notified during 1913 no blindness resulted in any case.

The Council are again to be congratulated upon the success which has attended the arrangements for the gratuitous bacteriological examinations in suspected cases of diphtheria, enteric fever, and phthisis. In some districts, however, medical practitioners have not availed themselves of this aid to accuracy of diagnosis to the extent to which it was hoped they would. In the text of this report, the opinions of many of the district medical officers of health regarding the value of the scheme are quoted, and in the following table the actual number of specimens examined since the commencement is set forth :—



	DIPHTHERIA.				TUBERCLE.				ENTERIC FEVER.			
	Positive.	Negative.	Doubtful.	Total.	Positive.	Negative.	Doubtful.	Total.	Positive.	Negative.	Doubtful.	Total.
Commencement of Scheme, Oct. 20, 1898, to June 30, 1899 .....	110	101	1	212	...	...	...	..	...	...	...	...
{ From July 1, 1899, to June 30, 1900	196	180	2	378	...	...	...	...	...	...	...	...
{ From Jan., 1900, to June 30, 1900...	...	...	...	...	9	14	...	23	5	4	...	9
From July 1, 1900, to June 30, 1901	350	350	30	730	30	70	...	100	36	36	2	74
„ „ 1901, „ „ 1902	190	367	14	571	25	67	...	92	26	32	3	61
„ „ 1902, „ „ 1903	247	421	...	668	45	77	...	122	8	41	...	49
„ „ 1903, „ „ 1904	183	324	...	507	41	107	...	148	3	34	4	41
„ „ 1904, „ „ 1905	231	494	22	747	36	100	...	136	8	24	...	32
„ „ 1905, „ „ 1906	271	469	15	755	56	103	...	159	13	34	4	51
<i>a</i> „ „ 1906, „ „ 1907	714	771	...	1485	82	120	...	202	18	45	...	63
<i>b</i> „ „ 1907, „ „ 1908	660	943	...	1603	47	103	...	150	5	33	1	39
„ „ 1908, „ „ 1909	333	637	...	970	48	155	...	203	15	132	3	150
„ „ 1909, „ „ 1910	350	904	1	1255	62	187	...	249	11	57	1	69
<i>c</i> „ „ 1910, „ „ 1911	442	1518	1	1961	55	196	1	252	13	69	3	85
<i>d</i> „ „ 1911, „ „ 1912	311	1035	...	<i>e</i> 1346	13	253	...	266	11	202	4	217 <i>f</i>
„ „ 1912, „ „ 1913	175	549	...	724	109	424	...	533	10	35	...	45
„ „ 1913, „ „ 1914	449	1249	...	<i>g</i> 1698	102	536	...	638	4	51	...	55
Totals from commencement of Scheme to June 30, 1914.....	5212	10312	86	15610	760	2512	1	3273	186	829	25	1040

*a* Seven special examinations of Cerebro-Spinal fluid for Meningococcus.

*b* From this year onwards, excluding Smethwick, now a County Borough.

*c* Excluding five Pottery Towns which, with Hanley, now constitute the new County Borough of Stoke-on-Trent.

*d* Handsworth added to Birmingham C.B., November 9, 1911.

*e* Including 224 "Contacts."

*f* Including 109 Special Blood Examinations from Cheddleton Asylum.

*g* Including 185 "Contacts."

It will be noticed that a very large increase has taken place in the number of specimens of suspected diphtheria and tuberculosis.

With reference to the administration of the Midwives Act, 1902, the Council have already been informed as to the progress of the work in the two divisions of the County, but the following statement, which I have compiled from official returns and from information supplied by the Inspectors, will indicate the present position of the County as regards

the number of midwives on the Register, and the number who have notified their intention to practise, as well as other details.

The number of certificated midwives on the Roll is 574, of whom 351 have notified their intention to practise, 116 being trained midwives. In addition to these, 25 midwives residing in county boroughs and adjoining counties have also notified their intention to practise within the administrative county.

As regards the number of cases attended by midwives during 1913 in the two areas respectively, the figures are as follows :—

	No. of Midwives.	Births attended.	Total Births.	Percentage attended by Midwives.	Mean number of cases attended by Midwives.
North ..	175	3715	6423	57·8	21·2
South ..	176	8350	12770	65·3	47·4

During the period covered by this summary (July 1st, 1913, to June 30th, 1914), in compliance with the rules of the Central Midwives' Board, 1,468 notifications have been received from certified midwives.

The following figures show the number and nature of notifications received in each of the past nine years :—

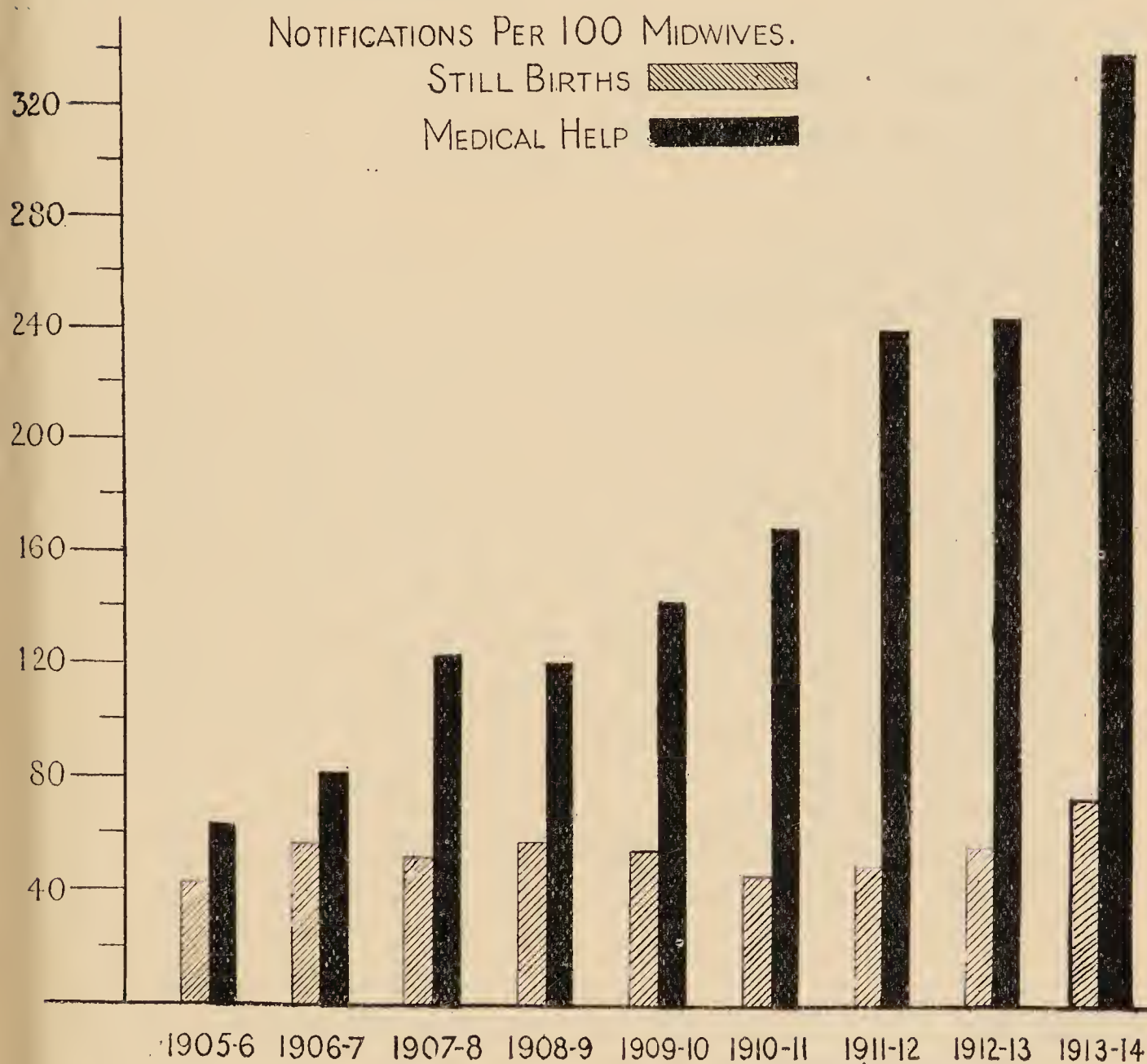
	1905-6	1906-7	1907-8	1908-9	1909-10	1910-11	1911-12	1912-13	1913-14
Sending for medical help ..	379	476	593	606	680	695	924	893	1179
Still Births ..	259	340	258	294	273	191	201	214	252
Death of mother ..	3	1	5	2	6	5	3	3	2
Ditto child ..	15	46	45	44	35	37	37	36	35

As regards the steady increase in the notifications of sending for medical help, the figures are highly satisfactory, as we may fairly infer from it that midwives are benefiting by the instruction of the Inspectors, and are realising more and more the importance of not undertaking the sole care of cases presenting abnormal features.

These figures are all the more satisfactory in view of the fact that in 1907 Smethwick was constituted a County Borough, thus removing 40 certified midwives from the number under

the control of the Local Supervising Authority of the County, and also because of the transference of 73 midwives to the Local Supervising Authority of the County Borough of Stoke-on-Trent, constituted in 1910, and the inclusion of Handsworth in the County Borough of Birmingham in November, 1911.

The significance of these figures becomes more apparent when represented in diagrammatic form showing the relative proportion of medical help and still birth forms per 100 midwives in each year :—



It will thus be seen that while the rate of notification of still births was pretty constant, varying between the limits of 43 and 71, the corresponding rates of sending for medical help steadily progressed from 63 in 1905-6 to 336 in 1913-14, an increase of 433 per cent.



To some extent the sudden increase in the medical help cases this year may be accounted for by the Treasury maternity grant of 30s.

The following figures show the causes which occasioned the sending for medical help :—

Causes of sending for medical aid.	Northern District.	Southern District.	Total.
<i>Pregnancy :</i>			
Abortion .. .. .	31	16	47
Threatened abortion .. .. .	—	3	3
Puffiness of face and hands .. .. .	2	2	4
Premature birth .. .. .	5	6	11
Sickness during .. .. .	2	—	2
Weakness ,, .. .. .	1	—	1
Retention of urine .. .. .	1	—	1
Unsatisfactory condition .. .. .	—	10	10
	42	37	79
<i>Labour :</i>			
Abnormal presentation .. .. .	29	68	97
Delayed or difficult .. .. .	131	223	354
Placenta prævia .. .. .	—	2	2
Hæmorrhage ante .. .. .	13	22	35
Ditto post .. .. .	9	23	32
Eclampsia .. .. .	1	1	2
Prolapse of cord .. .. .	1	7	8
Lacerated perinæum .. .. .	36	76	112
Retained placenta and membranes .. .. .	36	47	83
Cough.. .. .	3	—	3
	259	469	728
<i>Lying-in :</i>			
High temperature .. .. .	14	26	40
Rigor .. .. .	3	3	6
Convulsions .. .. .	3	1	4
Unsatisfactory condition .. .. .	10	31	41
	30	61	91

Causes of sending for medical aid.	Northern District.	Southern District.	Total.
<i>Child :</i>			
Deformities .. .. .	8	14	22
Convulsions .. .. .	2	11	13
Inflamed and discharging eyes ..	27	25	52
Feebleness and prematurity ..	47	106	153
Unsatisfactory condition .. ..	16	22	38
Rash .. .. .	3	—	3
	103	178	281
Grand total ..	434	745	1179

Unless reliable information is otherwise forthcoming, it is the routine practice to specially enquire into the circumstances attending all still-births reported by midwives, also, in special circumstances, inquiries are made into cases where medical help is sent for as well as when deaths of mothers or infants are reported, and it is the invariable practice when cases of puerperal fever attended by a midwife only in the first instance are reported to specially inquire into the circumstances. In the following table, figures are given showing the number of ordinary visits paid by the midwife Inspectors as well as special visits the outcome of notifications received :—



VISITS OF INSPECTORS, NOTIFICATIONS, INQUIRIES, &C., DURING TWELVE MONTHS, JULY 1ST  
1913, TO JUNE 30TH, 1914.

District.	No. of Midwives on List.	Trained.	Un- trained.	Visits.	Inter- views.	Notifications.					Inquiries.				
						Medical Assist- ance.	Still Births.	Deaths.		Puer- peral Fever.	Medical Assist- ance.	Still Births.	Deaths.		Puer- peral Fever.
								Mother.	Child.				Mother.	Child.	
North ...	175	59	116	696	596	434	85	...	12	10	25	55	...	10	9
South ..	176	57	119	737	629	745	167	2	23	15	49	114	2	22	8
Total ...	351	116	235	1433	1225	1179	252	2	35	25	74	169	2	32	17

Besides such enquiries, reported irregularities to the number of 33 were specially investigated.

During the year 33 cases of irregular conduct were reported to the Local Supervising Authority. Seventeen of these were dealt with by letters of caution from the County Medical Officer of Health ; seven were formally censured by the Local Supervising Authority ; seven were reported to the Central Midwives' Board, all of whom were deprived of their certificates ; and two were adjourned for further consideration. In addition to the above, one midwife voluntarily surrendered her certificate because of ill health.

Since the Act came into operation, the names of 62 midwives have been removed from the Roll as the result of representations to the Board by the Local Supervising Authority.

It would appear that the policy of the Local Supervising Authority in prosecuting women who, though uncertificated, have practised as midwives has had the desired effect, for, in only one case had proceedings to be taken during the year under review.

During the year eight midwives have died.

The following table shows particulars with regard to equipment, etc., of the certificated midwives :—

PARTICULARS AS TO EQUIPMENT AND EFFICIENCY OF MIDWIVES VISITED.

Dis- trict.	Requirements.				Case Books and Forms.	No. reasonably clean as to		No. who can—			Reasonable knowledge as to Treatment of Mother and Infant Manage- ment.
	Washing Dresses and Aprons.	Bags Equipped.				Person.	Home.	Read Ther- mometer.	Read and Write.	Pass Cath- eter.	
		Fully.	Partially.	Nil.							
North	174	158	15	2	172	165	160	151	140	85	157
South	175	121	54	1	174	173	173	154	110	57	176

With reference to infantile mortality in the administrative county, it is higher this year than last, a fact which is, no doubt, accounted for by less favourable climatic conditions than in 1912. This rate is greatly influenced by such conditions and fluctuates in consequence, so that it must not be inferred from one year's figures that the steady decline which has lately taken place is likely to be permanently interrupted. At the same time, it is possible, by attendance to hygienic requirements, to discount very considerably the injury arising from unfavourable climatic conditions which, of course, we cannot control.

Among the more pressing matters of sanitary reform, may be mentioned the systematic abolition of midden closets. Some of the authorities have shown much energy in this direction, but there is ample justification for special effort on the part of the County Council to bring about this reform by utilizing to the fullest extent the additional powers given them by the Housing and Town Planning Act. Local authorities can no longer justify inactivity on their part by professing that the law does not enable them adequately to enforce the substitution of water-carriage for conservancy methods of excrement removal, for, by adopting certain clauses of the Public Health Acts Amendment Act, 1907, they can acquire the needful powers of compulsion.

There can be no question that the continuance of conservancy methods tends to degrade the people and to discourage many from taking that interest in their homes without which all-round cleanliness can never be secured. This, in itself, would justify a radical change, but, when year by year the danger to health attending the system is more and more conclusively demonstrated, it is really incredible that so many local authorities should remain callous and require such constant spurring on to induce them to make what little progress there is being made. Without exception, the medical officers of health of the County have, for a quarter of a century to my knowledge, been pressing for reform in this matter, and year by year it is most depressing to gather from some of their reports that progress is so slow that another quarter of a



century will elapse before we can hope to be able to refer to the system in urban districts as a thing of the past.

One important matter, reference to which must not be omitted, is the progress which has been made in putting into operation the scheme for dealing with tuberculous persons for which the Staffordshire, Wolverhampton, and Dudley Joint Committee was constituted.

Under the approved scheme, when in full operation, provision will be made for dealing with non-insured as well as insured persons in so far as institutional treatment is concerned. For this purpose a central sanatorium to accommodate at least 100 patients will be erected on an excellent site within about three miles of Wolverhampton which has already been acquired by the Joint Committee. In addition to this three hospitals will be erected, in North, South, and Mid-Staffordshire respectively, providing accommodation for 66 patients, and dispensary stations will be provided in such populous centres as experience shows they will be required.

At the present time the Joint Committee have at their disposal, in existing institutions in the county and elsewhere, 103 beds, and six dispensaries or sub-dispensaries have been provided by utilizing temporary existing premises.

Operations are in active progress to provide the necessary buildings for all these purposes, and in my next year's report I hope to be in a position to record that considerable advance has been made in that direction. Negotiations are also far advanced for providing, through the agency of existing institutions (nursing associations) as far as possible, for the health visiting of tuberculous cases, and a whole-time tuberculosis health visitor has already been appointed for a populous area in the south of the county. By means of the machinery above mentioned, and under the direction of the Committee's medical officer and three senior and one junior tuberculosis officers, institutional treatment is now being provided for insured persons and for non-insured persons so far as dispensary treatment is concerned. At the present time 103 persons are receiving sanatorium treatment and 268 are regularly attending the dispensaries.



As regards the Sale of Food and Drugs Acts, the administration of the Acts in this County by the Public Health Committee of the County Council is highly efficient.

The County is divided into two areas under the charge of two Senior Inspectors, who have under them assistants, and who also have the power of appointing further temporary assistants as occasion requires. The work under the Weights and Measures Act is also under the same administration and staff.

As regards the number of samples collected, this County compares favourably, I think, with other counties. In the following table I have set forth the samples which were analysed during the year 1913, together with the results:—

	No. of Samples Sub- mitted.	No. Genuine.	No. Adulter- ated.	Cautions	Prosecu- tions.	Convic- tions.
Arrowroot ... ..	22	22	...	...	...	...
Beer ... ..	14	12	2	...	2	2
Butter ... ..	328	321	7	1	2	2
Coffee ... ..	45	44	1	...	...	...
Cream ... ..	1	1	...	..	...	...
Cream (preserved) ...	2	2	...	..	...	...
Dripping ... ..	1	1	...	...	...	...
Flour ... ..	14	14	...	...	...	...
Flour (Self-raising)...	29	24	5	5	...	...
Ginger ... ..	3	3	...	...	...	...
Ginger (Ground) ...	47	47	...	...	...	...
Lard ... ..	143	143	...	...	...	...
Milk ... ..	1101	1032	69	34	*35	34
Mustard ... ..	8	8	...	...	...	...
Oatmeal ... ..	7	7	...	...	...	...
Pearl Barley ... ..	11	8	3	...	3	3
Pepper ... ..	112	112	...	...	...	...
Rice ... ..	29	23	6	1	...	...
Spirits ... ..	79	68	11	3	8	8
Sugar ... ..	3	3	...	...	...	...
Tartaric Acid ... ..	6	6	...	...	...	...
Totals ... ..	2005	1901	104	44	50	49

\* One case withdrawn on payment of costs.

## Summary of Reports with Comments.

### AREA AND POPULATION.

I have no alteration to record this year in the area of the Administrative County, neither have the areas of the constituent districts been altered since my last report.

The populations of the various districts are, for the purpose of this report, estimated to the middle of 1913 and are based on factors supplied to me by the Registrar General and which I passed on to the district medical officers of health who, with but few exceptions, have made use of the figures and worked out their rates upon them. The rates in this report are worked out on populations arrived at by using the Registrar General's factors and, to the extent that these factors have not been made use of by local medical officers of health, the rates in this report will differ from those in the reports for individual areas.

Again, as regards death-rates, factors for correction in accordance with age and sex constitution were also supplied to local medical officers of health, and although these were made use of in the local reports in a few instances only they have been used in calculating the general death-rates for this report, as is indicated in the general table in which the factors are given as well as the unaltered rates and those corrected for age and sex.

In the following table the census figures of the Administrative County for 1911, and the estimated population up to the middle of 1913 are set forth, the urban being distinguished from the rural districts :—

	Census, 1911.	Estimated to middle of 1913.	Increase.
Urban .....	459,811	469,141	9330
Rural .....	207,232	210,546	3314
Total.....	667,043	679,687	12644

## BIRTHS.

The births registered in the Administrative County numbered 19,193, the number in the urban districts being 14,174, and in the rural districts 5,019.

The mean birth-rates in the whole Administrative County and in the urban and rural districts respectively, for five quinquennial periods and for the past year, are shown in the following table, in which corresponding rates in England and Wales and in the large towns in England, compiled from the Registrar-General's returns, are included :—

DISTRICTS.		BIRTH-RATE PER 1000 OF POPULATION.					
		5 Years 1889-1893.	5 Years 1894-1898.	5 Years 1899-1903.	5 Years 1904-1908.	5 Years 1909-1913.	1913.
Staffordshire	{ Combined Urban & Rural	33·6	33·2	32·5	30·3	27·8	28·2
	{ Urban .....	35·5	34·7	33·6	31·5	29·2	30·2
	{ Rural .....	30·2	30·5	30·2	27·0	24·4	23·7
England and Wales.....		30·8	29·7	28·7	26·9	24·5	23·9
Large Towns in England ....		31·5	30·7	29·7	27·8	25·2	25·1

It will be noticed that the birth-rates for the Administrative County as a whole, and for the urban areas, are slightly higher than in the last quinquennial period, but this slight increase has not taken place in rural districts.

In most of the reports under review reference is made to the low rates which are still maintained, but there are exceptions. For example, the Medical Officer of Health of Brownhills, in commenting upon the high rate of 36·9 recorded in that district, states that it is the highest since 1908.

The Medical Officer of Health of Quarry Bank writes :—  
“ After reaching the lowest level on record in your district in 1910, the tendency to rise has been annually progressive, and this year yields a birth-rate of 30·3.”

The Medical Officer of Health of Walsall Rural District also refers to a rate this year of 31·4 as being the highest recorded since 1909.



On the other hand, the Medical Officer of Health of the Borough of Newcastle, in commenting upon a birth-rate of 27·6, states that 1913 shares with 1910 the distinction of being below 28 per 1,000.

Also, the Medical Officer of Health of Cannock Rural District, where the rate was 23·0, refers to it as being the lowest on record and greatly lower than the rates of ten years ago.

DEATHS.

The number of deaths registered among persons belonging to the Administrative County amounted to 9,806, the number in the urban districts being 7,278, and in the rural districts 2,528.

In the following table comparative rates for five quinquennial periods and for the past year are given, together with corresponding figures for the country as a whole, and for town and country districts throughout England :—

		DEATH-RATE PER 1000 OF POPULATION.					
		5 Years 1889-1893.	5 Years 1894-1898.	5 Years 1899-1903.	5 Years 1904-1908.	5 Years 1909-1913.	1913.
Staffordshire	Combined Urban & Rural	18·1	16·9	16·1	14·6	14·1	14·4
	Urban .....	18·9	17·5	16·6	15·1	14·7	15·5
	Rural .....	16·8	15·7	15·1	13·4	12·7	12·0
England and Wales.....		19·1	17·4	16·9	15·3	13·9	13·7
Large Towns.....		21·0	19·0	18·2	15·8	14·3	14·3
Country Districts.....		17·6	15·9	15·7	14·9	13·6	13·1

Comparing the rates this year with those of the last quinquennial period, the comparison is slightly unfavourable in the county as a whole and the urban districts, but in the rural districts the comparison is slightly favourable. There are many incidental circumstances, however, which influence the death-rate from year to year, and the only just way of arriving at an opinion is to compare the means of various periods. If this is done it will be seen from the above table that there has been a steady and highly satisfactory decline in the death-rates during the past five quinquennial periods.



The death-rates in urban and rural districts, together with the figures upon which they are based, are shown in the tables at the end of this report. In the following table the figures are given for those urban districts in which the rates this year exceed 16·0 per 1,000, together with figures and remarks bearing on the influence which causes, preventable and more or less non-preventable, have had in causing such high rates. The districts are placed in order in accordance with the death-rates, the highest being placed first. The fact must not be overlooked, however, that there are other districts, besides those appearing in the table, in which the rates were by no means satisfactory, as a glance at the detail tables at the end of this report will show :—

DISTRICT.	Death rate per 1000 of Population.	Population estimated to middle of 1913.	Number of persons to the Acre.	Zymotic death rate per 1000 of population.	Occupation, &c.	Increase over average of entire districts from the undermentioned diseases, affecting appreciably the general rate.				Position as regards mean death rate for previous 10 years.
						Measles.	Whooping Cough.	Diarrhoea and Enteritis.	Diseases of Respiratory Organs.	
Willenhall	19·6	18,923	14·8	3·32	Working class.	Considerable.	..	Considerable.	Considerable.	16·9
Bilston ..	19·4	26,076	13·9	3·25	do.	do.	..	do.	do.	18·9
Darlaston ..	18·8	17,517	19·1	3·08	do.	Slight	..	do.	do.	19·6
Wednesbury	18·2	23,474	12·4	4·10	do.	Very Considerable.	..	..	..	15·7
Kidsgrove..	17·2	9,178	2·9	1·08	do.	..	Slight	..	Slight.	14·4
Tipton ..	17·0	32,047	14·7	2·87	do.	Slight	..	Slight	..	15·0
Brierley Hill	16·7	12,316	12·1	2·35	do.	..	..	do.	..	16·0
Leek .. ..	16·1	16,945	11·6	0·82	do.	..	..	..	..	16·3

It will be seen from the last column that among the eight districts forming this table this year Bilston and Darlaston stand out, as they have done in previous years, as high death-rate districts. In the former case the high rate is partly accounted for by a large number of deaths from measles, a disease over which sanitary administration has, at present at any rate, little control. On the other hand, there was an excessive mortality from diarrhoea among infants, potent causes of which are insanitary conditions. Deaths from diseases of the respiratory organs also contributed largely to the high rate, and such diseases are encouraged by unwholesome surroundings.

In the case of Darlaston, measles to a slight extent, and diarrhœa and respiratory diseases to a considerable extent contributed to the high death-rate.

Among the other districts included in the table, one at least, namely, Kids Grove, appears there by accident as it were, the mean rate being considerably lower, and in the case of the others, with the exception of Wednesbury, no disease appears to have specially contributed to the high rates. The Medical Officer of Health of Wednesbury points out that this year's rate is higher than it has been for eight years past, and is attributable to a very high mortality from measles and, in lesser degree, to an excess of deaths from diarrhœa and enteritis.

The Medical Officers of Health of Brownhills and Perry Barr urban districts and Lichfield and Seisdon rural districts all call attention to death-rates which are the lowest on record.

#### INFANTILE MORTALITY.

It has been my practice in previous years to compile a table showing the districts having high infantile death-rates, and for some years the qualifying figure for this table was a rate of no less than 200 per 1,000 births. In recent years, however, partly owing to the removal from the Administrative County of the pottery towns, and partly to a steady improvement in the rate all round, the qualifying figure has been greatly reduced and for this year I have taken it 140 and upwards.

In the following table are set forth this year's infantile mortality figures and those for antecedent quinquennial periods in the case of those districts where the rate for 1913 equalled or exceeded 140 :—

Deaths among children under one year in certain districts per 1,000 births.

	Bilston.	Darlaston.	Leek.	Short Heath.	Smallthorne.	Wednesbury.	Wednesfield.	Willenhall.	Wolstanton.
1889-1893 .....	203	214	138	171	177	171	175	182	...
1894-1898 .....	207	212	144	141	163	180	134	207	...
1899-1903 .....	188	204	161	147	158	165	153	179	...
1904-1908 .....	186	196	140	136	154	150	140	155	125
1909-1913 .....	141	158	125	104	152	131	153	152	126
1913 .....	154	144	159	140	146	152	191	166	147

It will be seen that two of the districts in the above table, namely, Bilston and Darlaston, stand out prominently as having habitually very high infantile death-rates, although in both districts there has been a gratifying reduction during recent years. As regards the other districts, it is but fair to point out that previous records indicate that the high rates this year in Leek, Short Heath, and Wolstanton are exceptional, but that in the case of Smallthorne, Wednesfield, Willenhall, and, in a lesser degree, Wednesbury, the position is not so satisfactory.

It is important to point out that the districts comprising the above table are brought into prominence this year because it so happens that they had high rates of infantile mortality in 1913, and it must not be concluded that other districts, because they may have been more fortunate this year, may relax any efforts to reduce infantile mortality which still far exceeds an attainable standard. Considerable prominence is given to this question in the reports under review and, as usual, I propose to quote pretty fully from them. Among the remedies proposed, the adoption of the Notification of Births Act and the appointment of health visitors are specially urged. In the smaller districts there would not be sufficient work to occupy a whole-time officer, but this difficulty could be overcome, either by uniting areas with small populations for this purpose, or by subsidising local nursing associations or



the County Nursing Association for the services of district nurses for this purpose. It is satisfactory to gather from the reports under review that schemes on such lines are extending, and I am hopeful that, through the action of district councils themselves without the intervention of the County Council, the greater part of the county will in the near future have health visiting schemes in operation.

The Medical Officer of Health of Bilston writes :—“ The influences that produce, or tend to produce, a high infantile mortality have been exhaustively dealt with on previous occasions. They mainly centre in two factors—the nature of the food the infant receives, and the income of the parent. It is well known that the chances of an infant fed on the milk of the mother alone surviving the first year of life are infinitely greater, probably three times as great, than the chances of the infant who cannot be so fed. With this is associated the appalling ignorance of the average mother as to how to feed and manage her child. The income of the parent is an economic question of far-reaching importance, and one that is concerned largely, not only in the causation of actual mortality, but also, to a very large degree, in the deterioration of physique and the ‘ stoppage of growth ’ that is so frequently observed in children of the very poor. Factory labour among mothers is regarded as an evil, but as a matter of fact, while it leads to artificial feeding of infants, and is therefore bad, it also helps to an increase of income for the home, and therefore to some benefit to the child. To shut women out of factories altogether and leave the man’s wage where it is, is not an unmixed blessing for the offspring. In some places as in London, Manchester, Paris, Brussels, &c., various organisations have been formed to assist poor mothers in this connection. In Paris a ‘ Nursing Mothers’ Restaurant ’ has been established, the only ticket of admission to which is the carrying of a child. To spend thousands a year on hospitals, sanatorias, and the like, and to neglect the needy nursing mothers, is a mistake too frequently made and one that will not help in race development. In this connection the maternity benefit under the National Insurance Act, is proving, and will continue to prove, a priceless blessing to poorer mothers.”



The Medical Officer of Health of Brierley Hill writes :—  
“ There is a general concensus of opinion now that some other agency is necessary to control the management of very young children, and the direction which that general view takes is that a health visitor in every district and the adoption of the Notification of Births Act is an essential condition, without which success cannot be expected.”

The Medical Officer of Health of Brownhills, in commenting upon an exceedingly satisfactory rate of 78 per 1,000 births, writes :—“ This is a remarkably low rate, so low in fact that I had to go over my returns three times before I could convince myself that it was correct.

“ The rates for the preceding five years are as follows :—

1912 ..	..	..	..	128
1911 ..	..	..	..	118
1910 ..	..	..	..	106
1909 ..	..	..	..	160
1908 ..	..	..	..	116
1907 ..	..	..	..	104

“ The most satisfactory feature is the decrease in deaths from wasting diseases. The figure is 13, compared with the 18 of last year, but as in most cases these deaths represent deaths which in a good number of cases could be avoided with skilful management and proper advice, congratulations must be tempered with resolves to eliminate, as far as possible, those deaths which represent in some cases carelessness, and in a good many want of knowledge. The only efficient method to make the resolves good is to adopt the Notification of Births Act, and to appoint the necessary official or officials to carry out the work.”

The Medical Officer of Health of Cannock Urban District, in commenting upon a rate of 129 per 1,000 births, which he considers unsatisfactory, writes :—“ Diarrhœal diseases have caused 14 per cent. of the total infant mortality, a greater number having died from these diseases than in any year since 1911. Twenty-one deaths were caused by pneumonia and bronchitis and six by convulsions. There is ample scope for child welfare work in the district, and I hope that something will be done in that direction. The Council will do

well to seriously consider the adoption of the Notification of Births Act. This would, of course, entail the appointment of a health visitor. By these means educative advice would be provided for the mothers as to the feeding, clothing, and general care of their infants, and as to their own health.''

The Medical Officer of Health of Heath Town points out that a rate this year of 123 per 1,000 births was only exceeded twice during the past ten years, namely, in 1905 and 1908, when it was 170 and 144 respectively, and says :—'The reforms that I have pressed home to your Council from year to year are to some extent maturing, but still far from realisation. The chief points are :—The gradual abolition of the privy and ashpit, and substitution of water carriage and sanitary bins, the effectual destruction of all garbage, the appointment of a health visitor, who will carry out the work of the Notification of Births Acts, enquiries relating to cases of tuberculosis and also of measles, whooping cough, and other non-notifiable diseases.''

The Medical Officer of Health of Leek Urban District deals at considerable length with the question of infantile mortality, and in an appendix to his report most interesting figures are given, in tabular form, showing the number and causes of death of all infants for a period of 60 years, compiled by the Sanitary Inspector. This must have entailed the expenditure of much time and labour, and the District Council are to be congratulated in having possessed officers in the past energetic enough to keep such careful records of the death returns as have enabled their present officers to make such excellent use of the figures. To reproduce these records and the conclusions which are based upon them would occupy too much space in a report of this character which has to cover so much ground, but I hope at some future time, possibly in my next annual report, to comment upon the figures providing they can be supplemented by a record of the number of births each year for as long a period as possible, so as to allow of rates being worked out which would be comparative.

The Medical Officer of Health of the Borough of Newcastle, in commenting upon an infantile mortality rate of 114, writes :—'In reviewing the question of infant mortality,

one may regard 1913 as a satisfactory year. While 1912 gave the lowest mortality figure per 1,000 births, and 1913 is apparently much higher, it must be remembered that only six more deaths of infants occurred. The deaths from diarrhœa were not numerous, considering that the summer of 1913 was favourable to the incidence of that disease.”

The Medical Officer of Health of Perry Barr calls attention to an infantile mortality rate of 49 and states that it is the lowest on record.

Under this heading the Medical Officer of Health of Quarry Bank writes :—“ There is a very favourable reaction in the amount of infantile mortality, the annual death-rate being lower than any since 1908, when the minimum record of 88·8 was reached. As already stated under Diarrhœa, the reduction is all the more striking as it has been obtained in spite of adverse meteorological conditions. In seeking to explain the improvement, one should note the following favourable innovations in your health armamentarium :—

“ 1. The establishment of a maternity nurse in January, 1913, who assists both mother and child and encourages breast feeding.

“ 2. The National Insurance Act, which provides medical attendance and monetary help for those who are ill during pregnancy, the first step in preventing debility in the newly-born.

“ 3. Financial assistance under the same Act during the period of childbed.

“ 4. Steady though slow improvement in the sanitary state of the district.

“ 5. The disappearance, so far as my experience goes, of the pernicious efforts to destroy the life of the unborn child by means of a certain poison referred to in my report to you for 1910. A death-rate during the first year of life of 105· to every 1,000 children born is, however, not to be accepted with equanimity. Some of the returns for Staffordshire towns last year, when infantile death-rates were comparatively high, will show what is possible under favourable conditions. Note, for instance, the following urban districts, with their infantile death-rates :—Amblecote, 44 ; Audley



81 ; Leek, 87 ; Lichfield, 76 ; Rugeley, 54. Figures, such as these, suggest a standard of mortality more in harmony with modern sanitation.

“ The lines on which every health authority may be expected to proceed, have already been so often stated in my annual and other reports that it seems almost redundant to repeat them. Epitomised they are as follows :—

“ 1. Conversion of privy middens to water closets.

“ 2. Removal of all refuse and substitution of bins for ashpits.

“ 3. Cleanliness and abundant air space in and around the dwelling.

“ 4. Supervision of milk and food supplies.

“ 5. Instruction and stimulation of mothers, expectant and actual, in matters affecting the health of the child.

“ I have already spoken of the subject mentioned under clause 5. The law provides an additional measure in the Notification of Births Act, and I should like to see an officer appointed, possibly the nurse already acting as a maternity nurse, whose duty it should be to call on every mother immediately after the birth of a child to give advice relative to its proper care and feeding. Under such circumstances it would be worth while to adopt the Notification of Births Act, which, apart from the employment of such a nurse, would be all but futile. The additional trouble and expense should not be great, as already she attends nearly a half of the total births in your district. The influence of her presence and advice may be inferred from the following particulars kindly supplied by the nurse :—

Total No. of Cases	..	106	Breast fed entirely	..	87
Children born alive	..	100	„ at first, but arti-		
„ Stillborn	..	6	ficially later	..	12
Died during year	..	3	Artificially throughout		1
			Births.	Infant Deaths.	
Total in District	..	228	..	24	
Under Nurse's care	..	100	..	3	
Not under Nurse's care		128	..	21	

“ The mortality among the nurse's cases so far is 3 per cent., or 30 per thousand. Among the 228 children born



in Quarry Bank there were 24 deaths, a rate of 105 per 1,000. This leaves a balance of 21 deaths among the 128 not attended by the nurse, a rate of 163 per 1,000. I am aware that the data are not strictly comparable, but the differences are so enormous as to need no comment."

The Medical Officer of Heath of Rowley Regis, where 137 deaths of infants under one year occurred, equalling a rate per 1,000 births of 116, writes :— ' Sixty of the deaths recorded were of infants under one month, prematurity being the cause of no less than fifty per cent. ; convulsions and debility contributed a further sixteen, and congenital malformations five.

" According to the report of the Medical Officer of the Local Government Board on Infant and Child Mortality, this district is amongst the highest twenty-five of 241 urban areas for the following five grouped causes of death, viz. :— Premature birth, congenital defects, injury at birth, want of breast milk, &c., atrophy, debility, and marasmus. Possibly, as Dr. Newsholme suggests, the influence of industrial occupation of women may be responsible for the excess under this heading. Your Council considered this report towards the close of the year, and I am pleased to say have taken steps for the adoption of the Notification of Births Act and the appointment of an additional health visitor early in the current year. By these means it is hoped some further control may be beneficially exercised both over the mothers and their infants ; particularly as regards feeding and care of health, both before and after birth. . . .

" A great deal of benefit has been derived from the work done by the health visitor, especially in connection with the epidemic of measles which was prevalent during the year. Her advice upon the treatment of minor ailments has also been much appreciated, and, generally speaking, her visits are well received.

" The greater portion of her time is occupied by her duties as school nurse, and consequently the duties of health visiting are much curtailed. This condition will be remedied in the very near future, as the Council intend to appoint a second nurse owing to the extra duties caused by the adoption

of the Notification of Births Act and the compulsory notification of ophthalmia neonatorum.”

The Medical Officer of Health of Smallthorne, one of the districts included in the high infantile death-rate table this year, writes :—“ In all my annual reports I have drawn your attention to the high infantile mortality prevailing in your district, and have ascribed the fact to two causes, carelessness and ignorance, and until these are removed the high rate is certain to continue. Educate the pregnant woman how to live and educate parents how to produce and rear healthy offspring. To do this the services of a health visitor are absolutely necessary. You have now adopted the Notification of Births Act, and I now ask you to appoint a health visitor who shall be your official and whose duty it shall be to attend at any house within the whole of your district where her services may be required. Without such an official the Act is mere formality.”

The Medical Officer of Health of Stone Urban District states :—“ In my opinion the health visitor’s work is showing good results in the rapidly decreasing number of improperly fed children.”

The Medical Officer of Health of the Borough of Tamworth, where a Queen’s nurse is engaged as health visitor in return for a contribution to the District Nursing Association towards her salary, states that useful work is being done by her.

In Uttoxeter Urban District the Notification of Births Act came into operation in August, and here, also, the district nurse acts as health visitor.

The Medical Officer of Health of the Borough of Wednesbury, one of the districts in the high infantile mortality-rate table with a rate of 152 per 1,000 births, comments upon the part played by diarrhoea and enteritis in causing this high rate. In view of this, the appointment of a health visitor is urgently called for, and it behoves the Corporation to adopt a more forward policy in the matter of excrement disposal and hasten the day when water closets will entirely replace privies. At the present rate of progress it will be many years before this work will be accomplished.

The Medical Officer of Health of Wednesfield, in commenting upon an infantile mortality rate which this year amounted to 191, states that it has only once been higher during the years for which he has records. He urges his authority to adopt the Notification of Births Act and appoint a health visitor. It will be seen from the high mortality table that normally Wednesfield has a high rate.

The Medical Officer of Health of Wolstanton, in commenting upon an infantile death-rate of 147, which places the district this year in the table of high rates, states that with one exception it is the highest rate during the past ten years, and adds, "It is unfortunate that this should be the case during the first year of the Notification of Births Act and the appointment of a health visitor." From figures supplied by the health visitor, I have been able to work out the infantile death-rates among breast-fed and bottle-fed infants respectively, as follows :—

	No.		Deaths.		Death rate per 1000 births.
Breast-fed ..	544	..	45	..	82
Bottle-fed ..	113	..	49	..	434

It will thus be seen that the death-rate among bottle-fed infants is more than five times that among breast-fed infants. It is true that the number upon which the estimate is based is not very large, but the difference is very much what one would expect from numerous similar records.

The Medical Officer of Health of Blore Heath Rural District is in the happy position of being able to record no deaths among infants during the year.

The Medical Officer of Health of Gnosall Rural District, in commenting upon an infantile mortality rate of 31 states that it is the lowest on record for many years.

The Medical Officer of Health of Seisdon Rural District writes :—"The small number of deaths of children under one year commented on in my report for 1912, when there were 25, giving a rate of 86.5 per 1,000 births, compared with 127, the average for England, was quite eclipsed by there being only 16, with a rate of only 48.7."

Under this heading, the Medical Officer of Health of Stoke-on-Trent Rural District, where the infantile death-rate



was 124, writes :—“ So appalling is the ignorance prevalent amongst the women of the poorer classes in the matter of care and feeding of infants that every year scores of lives are lost through eminently preventable causes—marasmus, atrophy, diarrhœa, tuberculosis in all its varied aspects, convulsions, &c. And yet more suffer from diseases of malnutrition and grow up into pasty complexioned, rickety, puny children with feeble intellect. To remedy this evil and minimise the infant mortality I would recommend your Council to adopt the Notification of Births Act, 1907, which provides for the systematic visitation of the homes of infants and which would be invaluable in the direction of educating the ignorant mothers on the upbringing of infants.

“ To ameliorate the insanitary environments amongst which the child is nurtured efficient measures should be adopted for the frequent removal of all house refuse, and the contents of privies ; the existing closets should give way to fresh water closets with flushing cisterns wherever practicable, and the ashpits should be replaced by moveable dustbins with covers, which should be emptied regularly and more frequently than has been the case. The importance of greater frequency in emptying the contents of the existing conservancy closets and removing the house refuse, more particularly in hot weather, cannot be over-estimated. The common house-fly is a notorious carrier of infection ; having fed on all kinds of filth, offal, garbage, human excreta it enters the human dwelling where it contaminates every article of food it alights upon, and such food when ingested gives rise to divers ailments and in some cases even infectious fevers. As the fly abounds where there is abundant refuse and excreta to thrive on, much could be done in this way of exterminating this formidable pest by depriving it of its culture-medium.”

#### ZYMOTIC DEATH-RATE.

The death-rate from zymotic diseases, including under that heading, according to the Registrar-General's classification, these seven principal ones, viz., small-pox, measles, scarlatina, diphtheria, fevers, whooping-cough, and diarrhœa, is slightly higher than the mean for the previous quinquennial period.



In the following table comparative figures are given for the five quinquennial periods from 1889 to 1913, and for the past year :—

DISTRICTS.	ZYMOTIC MORTALITY PER 1000 OF POPULATION.					
	5 Years 1889-1893.	5 Years 1894-1898.	5 Years 1899-1903.	5 Years 1904-1908.	5 Years 1909-1913.	1913.
Staffordshire { Combined Urban & Rural	1·73	2·15	1·80	1·48	1·48	1·62
Urban .....	1·98	2·54	2·07	1·73	1·75	1·96
Rural .....	1·30	1·44	1·28	0·88	0·83	0·84
England and Wales.....	2·13	2·09	1·87	1·55	...	...
Large Towns in England ...	2·74	2·77	2·40	1·95	...	...

## SPECIAL ZYMOTIC DEATH-RATE.

**Small-pox.**—Again the administrative county has been entirely free from small-pox. Sporadic cases of the disease; however, have occurred in different districts throughout England, and one anxiously scrutinizes the weekly returns of infectious cases distributed by the Local Government Board in order to note any cases which may occur in proximity to the county. Judging from past experience, sooner or later, outbreaks will occur which will tax our resources to the utmost, having regard to the fact that the population is now so inadequately protected by vaccination.

**Measles.**—In the Administrative County, 374 deaths occurred from measles, as compared with 207 in 1912, equal to a rate per 1,000 of the population of 0·55, as against 0·30. Of these deaths, 330 occurred in the urban districts, or 0·70 per 1,000, and 44 in the rural districts, producing a rate of 0·20 per thousand.

In the following table corresponding figures are given for five quinquennial periods, and for the past year :—

MEASLES.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	5 years. 1909-1913.	1913.
Urban {	Number of Deaths	195	239	188	211	268	330
	Rate per 1000.....	0·50	0·58	0·42	0·41	0·54	0·70
Rural {	Number of Deaths	66	69	40	39	30	44
	Rate per 1000.....	0·29	0·30	0·17	0·19	0·14	0·20

The Medical Officer of Health of Rowley Regis, where 45 deaths occurred, states that the outbreak was expensive and the type severe.

The Medical Officer of Health of Tettenhall calls attention under this heading to certain comments in my last annual report, and it is only right that I should reproduce what he says in extenso, as follows :—“ In justice to my Council and myself, I feel that I must fully refer to the following matter :—

“ This paragraph appeared in Dr. Reid’s annual report for 1912 :—

‘ The District Council of Tettenhall seem to adopt a strange procedure in dealing with outbreaks of this disease so far as school attendance is concerned. *Disregarding the views* of their Medical Officer of Health, they seem to have *directed* him to take a certain course under certain circumstances. Of course, as a District Council, they can, upon the advice of their Medical Officer of Health, order the closure of a school, but I have never previously met with a case in which the Sanitary Authority of a *district ventured to direct their medical adviser as to what recommendations he shall make to them*. They, of course, have a perfect right to disregard any advice he may give them, but to dictate to him what he shall advise seems to be entirely outside their sphere.’

“ I wrote to Dr. Reid on 28th November, drawing his attention to the fact that it was not correct to say my Council disregarded my advice. I had expressed my views on exclusion for measles, in 1909 (p. 9) and 1910 (p. 15), in which I ventured to dissent from the Regulations of the County Education Committee and the Joint Memorandum of the Medical Officers of the Local Government Board and Board of Education.

“ After seeing Dr. Reid at Stafford (24th August, 1911) I advised my Council to adopt the suggestions of the Joint Memorandum, with a view to securing uniformity of action in the county. To this they agreed.

“ Owing to the outbreak of measles at Tettenhall Wood in 1911, and at Tettenhall in 1912, my Council directed me

to revert to my original practice of excluding all children from houses with measles and preferred to follow my opinion rather than adopt the recommendations of the Joint Committee.

“ Dr. Reid wrote to me on 1st December and asked me to mention this matter in my next annual report, so as to give him the opportunity of referring to the question.

“ He says, in my report, I used the words ‘ my Council directed me.’ This is true, but they ‘ directed ’ me on the advice I had given on several previous occasions.

“ And so far from disregarding my views, they have adopted them.”

Needless to say I regret that what I wrote in my last year’s report should have conveyed a wrong impression, but I would point out that the conclusion I arrived at appeared to be borne out by the report of the Medical Officer of Health which I was reviewing, as will be seen from the following paragraph in that report :—“ In 1911 we agreed to adopt the recommendation of the joint Memorandum, but as I was unable to assure my Council that measles does not occur a second time, or that it is never conveyed by a third person, I was directed, 18th April, 1912, to exclude all children from houses affected by measles.”

The above certainly conveys the idea that the Medical Officer of Health was acting on the instructions of his authority, and it was not specifically set forth in the report from which the quotation was taken that he was in agreement with the policy he was “ directed ” to adopt. This I could not have known except from a previous conversation or by reference to previous reports.

Under this heading, the Medical Officer of Health of the Borough of Wednesbury writes :—“ We now come to the disease which during the year was mainly responsible for the exceptionally heavy mortality. It is impossible to form any idea of the number of cases which occurred, inasmuch as the disease is not notifiable, but there were no fewer than 72 fatal cases, a number far in excess of that for any year since my appointment as Medical Officer in 1884. The other years which are comparable in respect to measles were—1886, with 59 deaths ; 1896, with 53 deaths ; 1900, with



59 deaths ; 1904, with 57 deaths ; 1905, with 30 deaths ; 1907, with 27 deaths ; 1910, with 29 deaths ; and 1911, with 27 deaths. During 1912 only one death was due to measles, and yet the epidemic of 1913 developed so rapidly that no fewer than 62 of the 72 fatal cases were registered during the first quarter of the year. In the second quarter there were six deaths ; in the third quarter, three ; and in the fourth quarter, one. Before the end of the year the epidemic was at an end. Apart from any other consideration, the very high infectivity of measles in the earliest stages presents an insuperable difficulty from the point of view of prevention. And, although in sparsely populated rural districts school closure may be a measure of some value, I am unable to regard it as such in densely populated areas. In fact, I consider the control of measles as probably the most difficult problem which confronts a health authority."

The acting Medical Officer of Health of Willenhall, where 31 deaths occurred, with five exceptions all in children under five years, suggests that a reduction in deaths from this disease would probably be brought about by the exclusion from school of children under five " instead of, as at the present time, encouraging them to attend."

**Scarlet Fever.**—In the Administrative County, 40 deaths occurred from scarlet fever, as compared with 30 in 1912, equal to a rate per 1,000 of the population of 0·05, as compared with 0·04. Of these deaths, 32 occurred in the urban districts, or 0·07 per 1,000, and 8 in the rural districts, producing a rate of 0·03 per 1,000. In the following table corresponding figures are given for five quinquennial periods, and for the past year :—

SCARLET FEVER.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	5 Years 1909-1913.	1913.
Urban	{ Number of Deaths	76	95	87	56	43	32
	{ Rate per 1000.....	0·19	0·23	0·19	0·11	0·08	0·07
Rural	{ Number of Deaths	39	37	36	16	11	8
	{ Rate per 1000.....	0·17	0·16	0·15	0·08	0·05	0·03



It will be seen that the rates both in urban and rural districts were slightly lower than the mean for the preceding quinquennial period.

In many of the reports reference is made to the mild character of the disease and the difficulty of contending against it owing to the large number of unrecognised cases. The Medical Officer of Health of Lichfield Rural District, for example, in commenting upon an increase in the number of cases notified as compared with the previous year, says :—  
 “ So slight were some of the cases that the medical men in charge frequently experienced difficulty in arriving at an early diagnosis. Under such circumstances, it follows that many cases must have been entirely overlooked by the parents, and, being allowed to mix with others, continued to spread the disease, and so added greatly to the trouble of dealing with the outbreak.”

### Diphtheria and Membranous Croup.—

In the Administrative County, 78 deaths occurred from diphtheria and membranous croup, as compared with 67 in 1912, equal to a rate per 1,000 of the population of 0·11, as against 0·09. Of these deaths, 54 occurred in the urban districts, or 0·11 per 1,000, and 24 in the rural districts, producing a rate of 0·11 per 1,000. In the following table corresponding figures are given for five quinquennial periods, and for the past year :—

DIPHTHERIA.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	5 Years. 1909-1913.	1913.
Urban	Number of Deaths	16	79	91	84	56	54
	Rate per 1000.....	0·04	0·19	0·20	0·16	0·11	0·11
Rural	Number of Deaths	20	52	72	28	26	24
	Rate per 1000.....	0·09	0·23	0·31	0·14	0·12	0·11

From the above figures it will be seen that the rate for the year was practically identical with the mean rate for the last quinquennial period.

The Medical Officer of Health of Biddulph writes :—  
 “ Looking back on the year as a whole, an epidemic seems

to have been always present. Table 35 is worth careful study. It will be seen there that the disease first became prevalent in 1901; and that every year since (except 1902, 1910, and 1911) there have been numerous cases; but no year has had anything like the evil pre-eminence of 1913, in which no less than 78 cases occurred, or four times the average of the nine bad years. Table 30 shows that the majority were of school age."

Under this heading, the Medical Officer of Health of Brierley Hill writes:—"The last case notified in 1912 was in May of that year. In the outbreak of 1913, the first case notified was in August, so that there is fifteen months interval. I am convinced after full consideration that the two outbreaks are separate and distinct. This last outbreak occurred during the time when active operations were going on for making the house connections with the new sewers. In some of these places the ground was very foul from long saturation, and it was particularly so in the localities where the cases of diphtheria occurred. The weather was very hot, and the affected children in the foul area were constantly playing with the disturbed soil or watching the workmen. Although it is not now the general accepted view that diphtheria does arise in this way, I think the sewerage operations in localities where some of the worst of the old privy middens had been fouling the soil for years must be held to some extent responsible. It was not milk borne, and no contacts could be discovered as introducing it."

With reference to this quotation, I may state that I have frequently noticed that outbreaks of diphtheria and nondescript septic throat ailments coincide with the disturbance of the soil in towns consequent upon sewerage operations, &c.

The Medical Officer of Health of the Borough of Newcastle writes:—"Experience shows that this disease is spread by persons, and not by infected media as a rule, and the facilities that exist for bacteriological, as apart from clinical, diagnosis should simplify the work of the practitioner in assisting the health authorities to prevent the spread of this disease. Owing to the isolation of patients with the clinical

signs of diphtheria, the spread is almost entirely due to 'carriers,' *i.e.*, persons harbouring the germ and capable of infecting others, while not exhibiting signs of sore throats and illness.

"In all notified cases, the procedure has been to have other inmates of the house swabbed, while this has been extended to other contacts in the case of school children. No patient is discharged from the hospital unless two consecutive swabs give a negative result on bacteriological examination. This test should be applied to all cases of diphtheria."

In the same report, in referring to infectious diseases generally, the following appears:—"With regard to the acute infectious diseases, many contacts were examined during the year and means taken to obtain bacteriological examination to aid or confirm the diagnosis. The arrangement between the County Council and the University of Birmingham allows of prompt confirmation or otherwise of the diagnosis of diphtheria, enteric fever, cerebro-spinal fever, or tuberculosis. Bacteriological examination is of the greatest value in tracing infection, and during the year use was made of the arrangements as follows:—

				Specimens examined.
"Enteric fever	..	Widal reaction	..	5
"Phthisis	.. ..	Sputum	.. ..	7
"Diphtheria	.. ..	Throat swabs	..	115

The Medical Officer of Health of the Borough of Stafford states, regarding bacteriological examinations, that the county scheme is taken advantage of to a large extent, especially in the case of diphtheria and tuberculosis.

The Medical Officer of Health of Tipton writes:—"Unfortunately, we have no means for the gratuitous supply of anti-diphtheria serum. I strongly urge upon the Council this provision as its use has much lowered the mortality rate from diphtheria. Whenever possible a swab from the throat is sent up to the pathological laboratory in Birmingham for bacteriological examination, the report is useful for statistical purposes. I regret that more medical men do not employ this valuable aid to diagnosis."

Later, in the same report, it is stated:—"The provision of anti-toxin gratuitously would much benefit the district,



an epidemic might break out and medical men be hampered in the treatment by want of this most useful means of treatment.”

It is difficult to understand why the District Council of Tipton should not yet have fallen into line with other authorities in the county in supplying this inexpensive and valuable means, which is both curative and preventive.

The Medical Officer of Health of Lichfield Rural District writes :—“ In connection with the number of notifications received, I should again like to emphasise the fact that throughout your district extensive use is made of the bacteriological method of diagnosis, with the result that many cases are reported which, if ordinary clinical methods were relied upon, could not possibly be recognised. I make this statement because, although it is in the interest of the public health that these slight cases should be detected and isolated, yet it gives a fictitious idea of the prevalence of this disease compared with districts where these means are not so extensively employed.

“ In my last annual report I brought to your notice the uncertainty which prevailed as to when a diphtheria patient was free from infection, and mentioned that while two successive negatives were obtained from patients in the Isolation Hospital before discharge, the rule as regards private practice was to obtain one only. Although one negative may be sufficient in the majority of cases it is clear that in a fair proportion it is insufficient, while the above-mentioned instance shows that two consecutive negatives cannot be entirely relied upon. I think, however, the exceptions must be few—at any rate this is the only occasion upon which I have obtained definite evidence of failure.”

In Newcastle Rural District 44 cases of diphtheria were notified, 41 of which occurred in the village of Madeley. Every effort seems to have been made to curtail the outbreak, but, unfortunately, the trouble was not discovered early enough, the cases having arisen, it would appear, from an unrecognised case in school.

**Whooping Cough.**—In the Administrative County, 131 deaths occurred from whooping cough, as compared

with 175 in 1912, equal to a rate per 1,000 of the population of 0.19, as against 0.26. Of these deaths, 98 occurred in urban districts, or 0.21 per 1,000, and 33 in rural districts, producing a rate of 0.15 per 1,000. In the following table corresponding figures are given for five quinquennial periods, and for the past year :—

WHOOPING COUGH.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	5 Years 1909-1913.	1913.
Urban	{ Number of deaths.	182	172	152	175	132	98
	{ Rate per 1000.....	0.47	0.42	0.34	0.34	0.27	0.21
Rural	{ Number of deaths.	52	54	44	42	40	33
	{ Rate per 1000.....	0.22	0.24	0.19	0.20	0.19	0.15

It will be seen that the fatality from this disease was lower than the means for the five quinquennial periods.

**Enteric Fever.**—This disease, which must be looked upon as being entirely preventable, caused 19 deaths, compared with 29 in 1912, equal to a rate of 0.02, as against 0.04. Of these, 17 occurred in urban and 2 in rural districts, equalling a rate per 1,000 of the population respectively of 0.03 and 0.01. In the following table corresponding figures are given for five quinquennial periods, and for the past year :—

ENTERIC FEVER.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	5 Years 1909-1913.	1913.
Urban	{ Number of deaths.	59	84	71	49	24	17
	{ Rate per 1000.....	0.15	0.20	0.16	0.09	0.05	0.03
Rural	{ Number of deaths.	29	19	22	6	9	2
	{ Rate per 1000.....	0.12	0.08	0.09	0.03	0.04	0.01

It is satisfactory to note the decline which has taken place in the incidence of this disease, an occurrence which can only be attributed to improved hygienic conditions, more especially the abolition of private wells and the substitution of public water supplies as well as the activity

displayed in most districts in recent years in the substitution of water carriage for conservancy methods.

It is a striking feature in the reports under review that so little space is devoted to this disease, which formerly occupied so many pages in my summary.

In a large number of the reports this year the only reference to this disease is a statement that no cases were reported, and in the Administrative County only 19 deaths in all occurred. In the 48 districts, 31 urban and 17 rural deaths were recorded only in 12 of the former and two of the latter, and in no instance could it be said that the disease was epidemic. No doubt we shall continue to have periodic more or less extensive outbreaks attributable to the accidental contamination of food or water, but it would seem that the time is past when the disease can be said to be endemic in any district.

**Diarrhœa and Enteritis.**—In the Administrative County, 460 deaths occurred from diarrhœa and enteritis, compared with 184 in 1912, equal to a rate per 1,000 of the population of 0·67, as against 0·27. Of these deaths, 393 occurred in urban districts, or 0·83 per 1,000, and 67 in rural districts, producing a rate of 0·31 per 1,000. In the following table corresponding figures are given for five quinquennial periods and for the past year :—

DIARRHŒA.		5 years. 1889-1893.	5 years. 1894-1898.	5 years. 1899-1903.	5 years. 1904-1908.	5 Years 1909-1913.	1913.
Urban	Number of deaths	242	359	336	309	336	393
	Rate per 1000.....	0·62	0·87	0·75	0·60	0·68	0·83
Rural	Number of deaths	88	93	81	40	56	67
	Rate per 1000.....	0·38	0·41	0·35	0·20	0·27	0·31

It will be noticed that in both urban and rural districts the rate is higher than the mean rate for the last quinquennial period. In regard to this, however, it must be remembered it was only from 1911 onwards that enteritis was grouped with diarrhœa, so that for the first two years of the last



quinquennial period diarrhœa only was included as was the case throughout the previous quinquennial periods. To some extent, therefore, this may invalidate any conclusions which may be drawn from the figures.

Under this heading, the Medical Officer of Health of Brownhills writes:—"The deaths from diarrhœa exceed those of last year by 11. This may be explained by the high temperature experienced during the summer. I try to direct the energies and attention of the Sanitary Inspector to those localities where the disease is prevalent. Undoubtedly during the hot summer months more efficient street and privy scavenging, more frequent removal of house refuse, and attention to stables and other places in which decomposing refuse collects, would have a salutary effect on the prevalence of this disease."

The Medical Officer of Health of Cannock Urban District writes:—"It will be seen that the improvement noted last year has, unfortunately, not been maintained, rather a distinct set back has occurred. It cannot be too often or too strongly pointed out that this is a preventable disease, arising chiefly from the contamination of food (especially milk) by germ containing dust and dirt. The food is thus polluted, and if the temperature is one favourable to the development of the micro organisms they rapidly multiply in it.

"Flies no doubt often act as carriers of the poison to the food, and as flies breed in horse manure and such like refuse the weekly removal of all such accumulations from the neighbourhood of dwellings, especially in the summer months, is very necessary.

"Further, every house should be provided with a cool well-ventilated pantry for the storage of food, and all milk should be kept covered.

"Too often in the small properties a dark recess under the stairs adjoining the warm living room is the only provision for food storage.

"All yards and entries should be paved and the surface rendered impervious, as the disease is so intimately associated with foul conditions of the surface soil in the immediate neighbourhood of dwellings.

“ Certain action is desirable at the period of diarrhœal prevalence each year as follows :—

- “ 1. Increased attention to scavenging with rapid inspections to discover any accumulations of refuse.
- “ 2. Leaflets should be distributed giving information as to prevention and control.
- “ 3. Visits of health visitors to homes of infants for purposes of advice and enquiry.”

The Medical Officer of Health of Quarry Bank writes :—  
“ There was only one death attributed to this disease. Curiously enough, it was in an outlying farming locality, Aston's Fold. The Sanitary Inspector examined the premises and gave advice as to the importance of removing refuse and protecting the milk and food from contamination. Needless to say, the sanitary convenience was of the privy midden type. This is an exceedingly agreeable record when one considers that the months of July, August, and September, during which epidemic diarrhœa is usually most prevalent, were exceptionally dry. I have previously noticed that a dry summer meant in Quarry Bank a high diarrhœal morbidity and mortality, but 1913 has proved an exception. The summer, though dry, was cool, and house flies were much less numerous, so that the conveyance by them of pollution from the midden to the food in the house was much reduced.”

The Medical Officer of Health of the Borough of Wednesbury writes :—“ It was this disease which operated very fatally in the same year as did measles, and was the determining factor of our unusually high death-rate. The almost tropical summer of 1911 very much favoured the occurrence of diarrhœa, which occasioned 57 deaths. The succeeding year was notably cool and wet throughout the summer, and there were only seven deaths. Last year the summer was wonderfully dry, and the warm weather persisted late into the autumn. Diarrhœa was prevalent through the latter part of the summer quarter, and the whole of the autumn, and produced in all 31 deaths. As regards prevention, responsibility rests both with the sanitary authority and with the public. The latter need to learn the highly infectious nature of the disease, and the manner of its spread—chiefly

by means of contaminated food. Upon the health authority is the onus of removing nuisances in the way of defective privies and middens—a work which needs to be prosecuted unceasingly and as rapidly as possible ; also dirty and wet yards should be properly sloped and paved, so as to facilitate their being kept reasonably cleansed by the rainfall or by washing.’’

It would serve no useful purpose to quote further from the reports under this heading as all the comments are in the same strain, and, generally speaking, lay stress upon the fact that the vital consideration from a preventive point of view is thorough all-round cleanliness.

**Cholera.**—No mention is made of this disease in any of the reports under review.

**Erysipelas.**—Little reference is made to this disease in any of the reports.

**Puerperal Fever.**—In the Administrative County, 11 deaths resulted from puerperal fever, compared with 20 in the previous year.

The Medical Officer of Health of the Borough of Wednesbury, where three cases were reported, all of which recovered, writes :—“ This is a wonderful record in a manufacturing town where the births are well over 800 per annum.”

The Medical Officer of Health of Lichfield Rural District writes :—“ I am glad to say that no case has been notified during the year. This is noteworthy, inasmuch as for many years a few have been reported annually, with an occasional fatality.”

It will be seen from the general tables attached to this report that in the Administrative County as a whole 25 cases were notified. The case rate amounted to 1·76 per 1,000 births.

**Acute Poliomyelitis.**—It will be seen from the table of infectious cases notified that 19 cases of this disease occurred,



The Medical Officer of Health of Biddulph writes :—  
“ A death occurred on May 5th of a female infant, aged four months, the cause being given as ‘ infantile paralysis.’ The medical attendant says this was a child in which there was a syphilitic taint (in both parents). The paralysis extended during the period of attendance, first one arm and then the other being affected.”

One case occurred at Brierley Hill in an infant 17 days old resulting in paralysis which it is feared will be permanent.

In Leek Urban District there were, it is stated, several marked cases which mostly recovered with some remaining paralysis.

Concerning a case in the Borough of Newcastle, the Medical Officer of Health states that no human source of infection could be traced, and that at the time of writing his report the child was still disabled.

The Medical Officer of Health of Quarry Bank records one case, the cause of which could not be traced.

In Tipton there was one case followed by paralysis.

In Leek Rural District two school girls suffered, one of whom died, while the other, a marked case, recovered with paralysis of one arm remaining. The Medical Officer of Health states that there was no connection between the two cases.

The Medical Officer of Health of Lichfield Rural District writes :—“ Since the epidemic at Whittington in 1911 no case of acute poliomyelitis has been reported in this district. As the Local Government Board desired information regarding the after results of these cases I made enquiries, and in those whom I was able to trace I found that very excellent recoveries had resulted, although they all showed paralysis of some of the muscles originally affected. None of the children showed any marked deformity and will not, I think, be handicapped in after life to any great extent.”

In Walsall Rural District one case was reported which recovered completely, but the Medical Officer of Health states that the medical attendant informed him that after reporting the case he became doubtful as to the accuracy of his diagnosis

**Cerebro-spinal Meningitis.**—It will be noticed that 8 cases of this disease occurred in the Administrative County.

In Biddulph, one death was attributed to this disease, the patient being a child aged four. The Medical Officer of Health states that the case was only seen once by a medical man before death, and was not notified ; that, under the circumstances, no action was taken by him, and that as no bacteriological test was employed the diagnosis may have been doubtful.

In Brownhills, the Medical Officer of Health states that, although no cases were reported, he was given to understand that a case died in the Walsall district hospital which was sent there from the district.

In Leek Urban District, on the other hand, it is stated that two cases were reported in which the examination of the spinal fluid proved to be negative.

The Medical Officer of Health of Leek Rural District writes :—“ One death in the Leekfrith District was registered as the result of epidemic cerebro-spinal meningitis. The case was not notified under the Regulations of 1912, and it was only when death occurred that the medical practitioner in attendance, faced with the difficulty of determining between the epidemic form and the tuberculous, preferred the former, as he thought it unfair without cause to place a stigma of tubercle on the other members of the family. There were no spots in the case, but it must be admitted that the absence of spots is not conclusive. In all such cases, it is most desirable that the most reliable aid to diagnosis—lumbar puncture and the examination of the fluid withdrawn for the specific micro-organism—should invariably be employed. The operation is easy, and every facility for the examination of the fluid is given by the County Council.”

**Influenza.**—On the whole, it would appear from the reports under review that influenza was less prevalent than in 1912. In Amblecote, however, the Medical Officer of Health says it was very prevalent in November and December, and that in the latter month there were many more cases of pneumonia than usual.

**Tuberculosis.**—Since February 1st, 1913, Tuberculosis, which had been partially notifiable previously, became notifiable generally, both pulmonary and other forms.

In the following table figures are given showing the number of primary notifications received from medical practitioners, medical officers of institutions, and school medical inspectors during the eleven months, sub-divided as regards sex, age periods, and locality of disease. These figures no doubt include many cases of long standing, and in all probability there are a good many cases which have not been notified owing to the regulations having only so recently been established :—



PUBLIC HEALTH (TUBERCULOSIS) REGULATIONS, 1912.

Summary of Notifications during the period of eleven months from 1st February, 1913.

Primary Notifications by Practitioners and Medical Officers of Institutions.														Primary Notifications by School Medical Inspectors.				
Age periods	..	..	0	1	5	10	15	20	25	35	45	55	65 and upwards.	Total.	Under 5	5 to 10	10 to 15	Total.
Pulmonary Males	..	..	8	26	47	39	63	54	131	118	68	31	8	593	—	15	16	31
“ Females	..	..	3	19	43	51	45	82	143	81	38	23	7	535	—	21	26	47
Non-pulm. Males	..	..	25	58	56	25	25	15	9	14	4	5	2	238	1	15	7	23
“ Females	..	..	15	53	43	32	36	19	19	11	3	—	1	232	1	15	7	23

**Phthisis.**—In many of the reports considerable prominence is given to the question of the causation and prevention of phthisis, from which disease no fewer than 534 deaths have resulted during the year.

I extract the following from the report of the Medical Officer of Health of Biddulph, in which district Dr. Craig was appointed Assistant Medical Officer of Health pending his taking over the full duties of Medical Officer of Health on Mr. Garstang's retirement. Dr. Craig writes :—“ Under the new scheme, a dispensary is to be established in Biddulph, and this ought to prove of great value from the very first. The more one studies the question of tuberculosis, the wider it is seen to be, and a district like Biddulph, which has grown somewhat rapidly, is one in which a fairly high incidence of attack may be expected and ought to be provided against.”

The Medical Officer of Health of Bilston writes :—“ When a notification is received, the patient is visited and enquiries made as to the probable cause. Advice is given with regard to personal habits, the need of fresh air and the open window day and night, and other preventive measures, cards of instructions are left, and disinfectants supplied. After removal or death the house is fumigated and the bedding, &c., disinfected.”

The Medical Officer of Health of Brierley Hill writes :—“ When the Tuberculosis Joint Committee for South Staffordshire has got its scheme in full working order, I believe it is their intention to undertake the inspection and control of all consumptives, and on the local authorities will devolve the responsibility, as at present, of the sanitary condition of the dwellings and disinfection. Most attention at present is necessarily in the direction of treatment of notified cases ; but in time, stronger preventive measures, not only in dealing with insanitary dwellings under the Housing Act, but in prohibiting the sale of tuberculous food, especially milk and meat, will follow.”

The Medical Officer of Health of Brownhills, where 16 cases of pulmonary tuberculosis were notified, writes :—“ All of those cases were visited and an attempt made to trace the source of infection. A few of the cases showed a

previous consumptive history in the family. In one instance two sisters had died from an acute phthisis, and the father had a chronic cough.

“ These visits are made when possible, in conjunction with the medical attendant, but all the medical men of the district have given me a free hand to make any examinations I wish even when they are not present. The risk of infection from the dried sputum is explained to the patient in some cases, in others to a responsible person. On a death occurring from phthisis the premises are thoroughly disinfected.

“ Printed instructions and a sputum flask are left at each house. Any sanitary defect noted at the time is reported to the Sanitary Inspector.”

The Medical Officer of Health of Heath Town writes :—  
“ I have advocated continuously and persistently the strenuous campaign against phthisis. The first stage was arrived at two years ago in the universal compulsory notification of pulmonary tuberculosis. Last year the National Insurance Act came into force as far as sanatorium benefit was concerned. Last year I pointed out the value and necessity of following up notifications by systematic visiting by the Council's officer appointed for this purpose. The sanitary condition of houses, the sleeping arrangements, and the personal cleanliness of patients should be noted and corrected, and valuable advice could be given from time to time. So far your Council has not been able to provide this officer.

“ During the year 1912, as an experiment, I personally visited each case notified where a correct address was given, and distributed cards of instruction, and gave orders for spit-flasks where necessary, and observed the sanitary conditions, and these were corrected where required, and have ordered the disinfection of dwellings in case of death, but as nothing further was done, I have not done this except in isolated cases this year.

“ I am afraid that single visits are of comparatively little use. Repeated visits with comprehensive reports are necessary.”

With reference to the above quotation, it is to be hoped that the District Council will provide the needful staff to allow of the work referred to being properly carried out.



The Medical Officer of Health of the Borough of Newcastle writes :—“ The appointment of a tuberculosis officer, who is now in active duty, is an immense boon to the community. The compulsory notification of tuberculosis amongst all classes came into force on the 1st February, 1913, and while every effort is now being made to cure and ameliorate the extent of the disease, it must be borne in mind that the function of prevention is not one whit less important.”

Later, in the same report, in relation to the administrative work of the authority in connection with tuberculosis prevention, the following paragraph appears :—“ Arrangements will shortly be made for co-ordinating the work with that of the Tuberculosis Officer of the Joint Committee, and it is hoped that the services of the nurse will be available to assist that officer as well as the Medical Officer of Health in dealing with the control of tuberculosis.”

The Medical Officer of Health of Quarry Bank writes :—“ As an adjunct to medical and sanatorium work the health authority becomes responsible for home conditions in their sanitary bearings. Dwellings that are damp, dilapidated, overcrowded, or deficient in light or ventilation are discovered by routine inspection under the Housing Act and should then be put in order. Infected homes should be placed under suspicion and disinfected whenever possible. The risk of personal transmission should be reduced by constant supervision and advice, and tubercular milk and meat should be prohibited. Cards and pamphlets setting forth the principal facts with regard to consumption are left with each patient. The visitation of patients' homes has so far devolved upon the Sanitary Inspector and myself, and in addition to a scrutiny of the premises, enquiries are made as to other possible cases in the family. Such as are discovered are advised to consult a medical man. I have no reserve in saying that the victims of a tubercular patient are his nearest friends. Husbands infect wives ; wives, husbands ; parents their stay-at-home children, and so forth, the succession of cases being often as direct as it is pathetic. What, then, must happen where overcrowding exists ? The poorer the family the more huddled together—a vicious circle

becoming established that nothing but firm outside intervention can break through. Herein the Notification Act is justified, and in my judgment, time must find stronger measures adopted—segregation of the diseased applied, and such precautions taken as go unquestioned in small-pox or leprosy. So far the law refuses to sanction this, probably because it is for the present inexpedient. Visits are made, unless the medical attendant otherwise desires, directly on the receipt of notification, and subsequently from time to time. In future it is anticipated that the Tuberculosis Joint Committee for South Staffordshire will undertake inspection, including the detection of unrecognised cases, whilst the sanitary authority will be responsible for the state of the dwelling and its disinfection.”

The Medical Officer of Health of Rowley Regis writes :—  
“ Upon receipt of a notification the patient is visited by myself, and enquiries made as to the probable source of infection. Subsequent visits are also paid at intervals by the staff of the Health Department, and cards of instruction are distributed, giving advice as to the means to be adopted for preventing the spread of infection. In cases of pulmonary tuberculosis sputum flasks are also provided, and in each case a supply of disinfectants is given.

“ After a removal or death the house is fumigated, infected rooms limewashed, and the bedding and clothing disinfected by superheated steam.”

Under this heading, the Medical Officer of Health of Lichfield Rural District writes :—“ The notifications when received are forwarded to the superintendent nurse (Miss Wéeley), who distributes them among the district nurses acting as health visitors according to the areas in which the patients reside. Systematic visiting is then carried out, advice and instruction being given to patients and other responsible members of the household. The nurses carry out their duties with zeal and tact, and I have reason to believe that their visits are almost invariably welcomed. Any defect which may exist in the dwelling or its sanitation is reported to your Sanitary Inspector, who deals with it in the usual manner.

“ The appended report by Miss Wheeley is of a particularly interesting character and worthy of careful perusal. It will be noticed that the routine visits to notified cases of tuberculosis have been the means of bringing to light a number of doubtful or previously unknown cases, a branch of the work the usefulness of which it would be difficult to overestimate. Miss Wheeley also refers to the housing requirements of the patients and mentions that certain of the homes under the special circumstances are overcrowded. This statement I quite agree with, but it must be borne in mind that the need for additional accommodation is most urgent when the means with which to provide it are least available. Tuberculosis implies a long illness, and therefore a severe financial strain in any case, and when, as so often happens, the patient is the bread winner, the income is materially reduced over a prolonged period. Under such circumstances as these to remove to a larger house is usually an impossibility, but the necessity for this can sometimes be obviated by the use of a shelter. Formerly, when these were not available a separate sleeping room for the patient could not often be obtained without overcrowding the other bedrooms. Several of these shelters are now in use in your district and have proved of considerable service as they give an additional room, provide the means of obtaining open air treatment, and reduce the risk of infection to others.”

I extract the following from Miss Wheeley's interesting report above referred to :—“ Fourteen of the 63 cases were discovered in various ways by the visiting nurses ; some have since been notified by their doctors, some have not. In a few of these 14 cases tuberculosis is suspected but not actually diagnosed, for example, two married women (not insured, nor in any club, dispensary, nor under the Poor Law) we have not yet succeeded in persuading to go to a doctor to be examined. In one case the reason given is the expense, and in the other that she is very much better and feels quite well now. . . . .

“ Thirty patients have managed to have a room (or shelter) to themselves. Eight have a separate bed but share the bedroom. The remaining patients either cannot arrange



for either separate room or even bed and cannot be persuaded that it is really necessary.

“ Nineteen houses are very clean, the others range downward to six or eight very dirty ones, but on the whole they are clean.

“ The patients have treated the articles loaned to them with great care. Ill as some have been, only one sputum flask and two thermometers have been broken.

“ During the year 931 visits have been paid to these 63 patients.

“ On December 31st, 1913, the number of patients on the books was men 12, women 15, children 15.”

### **Diseases of the Respiratory Organs.—**

Under this heading, which does not include phthisis, 1,712 deaths occurred, as compared with 1,724 in 1912.

None of the reports contain any remarks regarding these diseases which call for special reference.

**Ophthalmia Neonatorum.**—This disease, which was previously notifiable throughout most of the Administrative County, owing to special efforts having been made in that direction, has now been added to the list of diseases which are compulsorily notifiable. In my last year's report I called attention to the fact that in a good many of the districts where cases occurred no details were given in the reports as to the steps taken to deal with the cases and the results attained, and I am glad to say that, with only a few exceptions, the information has been supplied this year. In response to a special application the Medical Officers of Health of the latter districts have been good enough to give me the data which was wanting, and I am happy in being able to state that of the 53 cases reported all were dealt with and treated by various agencies, with the result that in no instance did blindness follow.

In Audley one case was reported and immediately treatment was provided.

In Bilston, where 11 cases were notified, nine were visited twice a day until recovery took place and the other two were under medical care.

In Coseley it would appear no special provision for treatment has been made by the authority, but it is said that four cases which occurred in the district were treated at neighbouring hospitals.

In Leek Urban District one notified case was visited by the health visitor three or four times a day until complete recovery. Also 23 suspicious cases were visited two or three times a day and all quickly responded to treatment.

In the Borough of Newcastle there were five cases, all successfully treated under the scheme provided by the Corporation.

The Medical Officer of Health of Quarry Bank writes :—  
“ The only case of ophthalmia among the newly-born was under the charge of a local midwife. The condition was so grave that the young patient was admitted immediately into the Guest Hospital. The sight was preserved. The midwife stated that she had had no previous case for years, so that the infection could not be attributed to her. She was given disinfectant and advised as to the risk of infecting others.”

In Tipton there were two cases, both of which were treated at the Guest Hospital.

Among other cases specially referred to in the reports as being successfully dealt with were four at Willenhall, two at Wolstanton, one in Cannock Urban District, and one in each of the following rural districts, namely :—Lichfield, Newcastle, and Tutbury.

#### ZYMOTIC DISEASE PREVENTION.

**Isolation and Disinfection.**—In most of the reports, both for urban and rural districts, this question is very fully dealt with. On the whole, the Administrative County is now fairly well provided with hospitals, although there are exceptions. As regard means for the disinfection of clothing and bedding, however, the position is not so satisfactory.

In the summary of the year's work of the Public Health Committee I have referred to a special enquiry I made and an exhaustive report which I presented (the second in the history of the County Council) setting forth the present

position of the county as regards the provision of isolation hospitals. Upon this the Public Health Committee communicated with the various authorities in whose districts either provision had not been made or was inadequate, and at the present time negotiations between the Committee and the authorities are in progress with the view of bringing all the districts up to a reasonable standard in this respect. Under the circumstances it will not be necessary to deal with this question so exhaustively as in my previous annual reports.

In the table at the end of this report, headed “ Result of the Working of the Compulsory Notification of Infectious Diseases Act,” figures are given showing to what extent isolation hospitals are made use of in districts where they exist. It will be noticed that the use made of them varies very considerably, and in many cases it is evident that they can be of little practical value in curtailing epidemics—the chief purpose for which they are intended.

The percentage of infectious cases isolated in districts where hospitals are available, and have been available during the year, varies very much—from nil in Brownhills, Coseley, Rugeley, Sedgley, Short Heath, Wednesbury, Wednesfield, Willenhall Urban Districts and Blore Heath and Mayfield Rural Districts, to 100 in Stone Urban District and 95·4 in Cannock Rural District.

The Medical Officer of Health of Audley writes :—“ This is the first complete year during which we have had the use of the Bradwell Sanatorium under the Joint Hospital Board. The accommodation provided for our cases has been very satisfactory. All the cases have been taken in without any delay.

“ There is an increasing willingness on the part of the people to use the hospital, and the percentage of cases isolated there is increasing.”

The Medical Officer of Health of Biddulph calls attention to the fact that no steps have yet been taken to provide a local disinfecting station, so that for steam disinfection the district has to depend on the apparatus at the isolation hospital over four miles away.



The Medical Officer of Health of Bilston states that the necessary extensions at the hospital are under the consideration of the committee.

Under this heading, the Medical Officer of Health of Brownhills writes:—"In this respect we are no further forward than we were last year, and I can truthfully say that the fault is not entirely with the Council. Last year the Clerk wrote to several of the adjoining authorities expressing our willingness to form a combination for the provision of an hospital, but none of the replies gave us any hope that these authorities were willing to combine with us. Towards the end of the year I wrote to the Medical Officer of Health of Walsall Rural and asked him if he would kindly bring the matter before his Council, with the result that the Clerk of the Walsall Rural Council sent a letter to this authority intimating their willingness to go into the matter. If another adjoining authority could be found to combine with these two I am confident that they would be able to formulate a joint scheme which would provide us with a permanent hospital for infectious diseases.

"The hospital for small-pox is a temporary structure, and I could not honestly say that it is at present in a fit state to be utilised. The water supply is from a well which in a recent test showed contamination. The Surveyor is carrying out certain alterations which ought to result in a pure supply. The hospital is not connected with the sewer. To bring the hospital up to a proper condition of fitness, a considerable sum of money would require to be spent. At a recent interview with the County Medical Officer of Health, he made the suggestion that this authority make application to join the South Staffordshire Small-pox Hospital Board. I think his suggestion a valuable one, and I should recommend that you give it full consideration."

With reference to the provision of a disinfecting station for the district the same Medical Officer of Health states:—"For the fact that this has not already been provided I must take full responsibility. I thought that if a combination of authorities could be effected for the provision of a joint hospital, the disinfecting apparatus could also be jointly

arranged for. As this seemed impracticable the Council at one of their meetings agreed to invite tenders for an apparatus, and a sub-committee was appointed to go over those tenders. This sub-committee has approved of two types of disinfectors, both of which in my opinion are satisfactory. It only remains for the Council as a whole to accept one of the two types.

“ All infected materials during the year have either been destroyed and the owners compensated by this authority or the materials have been disinfected by means of the disinfecter at Lichfield.”

The Medical Officer of Health of Cannock Urban District writes :—“ Beyond the provision for small-pox, which has already been alluded to, as unsatisfactory, there is no means of isolation in the district. In a certain small number of cases isolation has been effected by removal to the hospital of the Rural District Council, with that Council’s consent.

“ Their hospital is an iron and wood building and not more than sufficient for their own requirements.

“ After full consideration, and on the report of a deputation which visited several hospitals, your Council have concluded that it is advisable to erect a hospital of a permanent character in the urban district. A site has not yet been fixed upon, but it should be possible to get one where sewers, gas, and water would be available. This would have a favourable influence on the cost.”

The Medical Officer of Health of Rugeley writes :—“ In my former reports I have endeavoured to impress on your Council the uselessness of the present small-pox hospital, and I am sorry to hear that there has been an endeavour to improve it by rough casting it. As a practical proposition, it might as well be at the North Pole, and no nurse would stop there twelve hours.”

In the same report it is stated that disinfection is carried out as far as possible, but that as there is no disinfecting apparatus it is impossible to disinfect bedding, &c., properly.

The Medical Officer of Health of Sedgley, in commenting upon scarlet fever, says that, owing to the lack of hospital accommodation the disease is practically endemic in the district.

The Medical Officer of Health of the Borough of Tamworth, where there is a hospital for the joint use of the borough and the rural district, writes :—“ The question of increased sleeping accommodation at the administrative block for the nurses has been brought before the notice of your visiting committee, as it is at present inadequate, and adds somewhat to the difficulty of keeping the nurses. Some increase of accommodation appears to be advisable under the circumstances.

“ I have in previous reports drawn your attention to the need there is for a small temporary building, to be used as an observation ward, in which a doubtful case of illness could be isolated without incurring danger to himself or risk of further infection to the other patients in the wards.”

In commenting upon an outbreak of scarlet fever, the acting Medical Officer of Health of Willenhall writes :—“ Efforts were made in every case to secure as perfect isolation as possible, and where practicable, bedrooms and bedding were disinfected on recovery or death. The difficulty of properly isolating cases in houses with deficient bedroom accommodation, where often three or four persons must occupy the same room, demonstrates the urgent need of an isolation hospital. An epidemic such as this might be nipped in the bud, if the first few cases could be efficiently isolated.”

The Medical Officer of Health of Gnosall Rural District urges his authority to come to some arrangement for the use of some neighbouring hospital.

The Medical Officer of Health of Stafford Rural District writes :—“ The arrangement with the Stafford Corporation, by which all cases of scarlatina, enteric, and diphtheria in the rural district should be treated in the borough isolation hospital has been in force since April 1st, 1912. The Stafford Corporation entered into an agreement to enlarge their present accommodation sufficiently to provide for all such cases, and this additional accommodation is now available.”

The Medical Officer of Health of Walsall Rural District writes :—“ There is no hospital in the district for the treatment of infectious disease, but I am pleased to be able to



report that a meeting will shortly take place between representatives from this Council and from the Brownhills Urban District Council with a view to formulating a scheme which will be able to serve both districts in this matter.''

**Vaccination.**—It is evident from the reports under review that the ease with which exemption certificates can now be obtained has had serious consequences as regards the number of children who are protected against small-pox by vaccination.

The repeated reference I have made in these reports to the increasing tendency to avoid vaccination is becoming monotonous, and as it seems impossible to influence public opinion in the right direction, I do not propose on this occasion to quote from the reports under review. Suffice it to say that year by year the number of "conscientious objectors" increases, and it would appear that at the present time the unvaccinated children exceed the vaccinated.

#### INSANITARY DWELLINGS AND OVERCROWDING.

It would appear from the reports under review that the coming into operation of the Housing and Town Planning Act, 1909, has led to greater activity being displayed by many of the authorities in the direction of improving the housing conditions. In districts where systematic inspections are being made, good work is being done, and especially in those districts upon which I have reported to the Council in the course of the sanitary survey, already referred to, which is in progress.

Having regard to the importance of this question, I propose to quote pretty fully from the reports, in order that members of authorities and others who are specially interested in the better housing of the people may see what is being done, and be able to form an opinion, from the views expressed, as to the difficulties which have to be overcome, and judge as to how they can best be surmounted.

The summary will also be of interest to those members of the County Council who are not members of the Public Health Committee, and who, therefore, may not be so familiar

with what has resulted from the action of that Committee in districts already officially reported upon. In order to indicate these districts the paragraphs relating to such as were reported upon previous to the receipt of the local annual reports will be marked with asterisks.

\* In Audley it would appear that 240 houses have been inspected during the year under the Housing and Town Planning Act, with the following result :—

“ Houses in which the windows of living rooms have been made to open, 85.

“ Houses in which the bedroom windows have been enlarged so as to comply with the bye-laws, 8.

“ Bedrooms without a fireplace, where ventilation has been put in, 38.

“ Yards and floors that have been repaved, 32.

“ Houses in which dampness has been remedied, 6.

“ In three cases the roof has been taken off and the height of the rooms raised.

“ Twelve houses have been permanently closed, of which ten have been demolished.”

\* The Medical Officer of Health of Biddulph states that only 99 houses out of about 1,560 have been formally inspected during two years, and he points out that the rate of progress must be greatly increased if the housing regulations are to be reasonably carried out. In this connection he says :—

“ No blame attaches to Mr. Gibson (the Sanitary Inspector), he has done all that was possible in the time at his disposal. The County Medical Officer of Health’s report on the housing question was quoted in my last volume, and should be here referred to and amalgamated with this report. Among other important points it deals with overcrowding, to which therefore I need not further allude, beyond saying that one of the worst cases that I have ever known was reported (through the School Medical Officer) during the year.

“ Mr. Gibson is the only officer, besides myself. The Council has never had a larger staff. But the increasing population, and increasing duties, have brought us now to a point where it cannot any longer be ignored or disputed that

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\* Specially reported upon by County Medical Officer of Health.

one man, however able and however hard-working, cannot possibly do the work. It is, in my opinion, urgently necessary to separate the duties of the Surveyor from those of the Inspector of Nuisances, and to employ a separate officer for each post.''

The Medical Officer of Health of Bilston, in referring to overcrowding, points out that in some cases tenants leave houses on receipt of notice to go to houses occupied by other families and thus add to the evil, and he adds " these cannot be followed up owing to the shortage of houses at a rental within their limited means." In the same report the following appears :—" The question of closing houses in this district is a very serious one, requiring the most careful consideration. The wages of the poorer class do not allow them to pay rents sufficient to procure houses large enough for their families, and in many cases they have no choice but to reside in some that are hardly fit for habitation. Not unfrequently, too, their habits and mode of life would soon reduce the best of dwellings, if they were fortunate enough to secure them, to a dirty and dilapidated condition. These difficulties are increased by the high price of building materials and the almost intolerable burden of local taxation. To close many of the existing houses, however unsuitable they may be, or to bring about hasty and extensive demolition of insanitary properties, would aggravate the evil by raising the rents of the cheaper houses that remained, and would cause still further overcrowding. One of the most urgent social problems is the provision of cheap sanitary dwellings in more open spaces, at rents within the reach of the poorer portion of the community, who, in their turn, should be made to keep the houses (and themselves) in a clean and healthy state.''

In this direction considerable activity has been displayed at Brierley Hill, as will be seen from the following quotation from the report of the local Sanitary Inspector which is published with that of the Medical Officer of Health :—" Before reporting to your Sanitary Committee, an intimation, in the form of a preliminary notice, is sent to each owner, containing a detailed list of sanitary defects existing, with the suggested remedies.



“ Eighty-four houses were visited by your Health Committee during the year, and following their report, 32 closing orders were issued, and have become operative. Closing orders were not operative in respect of 52 properties at the end of the year. Twenty-two closing orders were determined, the repairs having been executed ; nine houses were voluntarily demolished ; four were closed by magistrates’ order and are still void.

“ Plans for the reconstruction of three were approved by the Council ; one is under notice for demolition, and two others will be demolished. The consideration of one was adjourned for six months. The remainder were under repair at the end of the year.

“ A considerable number of houses were repaired after a written or verbal intimation, pointing out the defects existing, and I again desire to express my appreciation for the manner in which many landlords have met the Council’s requirements in this respect.

“ Two hundred and seventy-six windows of the fixed type had a hinged casement inserted.

“ Three hundred and sixty-three wash-houses were repaired or rebuilt, and new paving and sinks provided. Fifteen dangerous cisterns were filled in ; and new yard paving was laid at 159 properties.

“ Other repairs including repairs of stairs, handrails, floors, providing ventilation to pantries, and through ventilation to living rooms.”

\* The Medical Officer of Health of Brownhills writes :—  
“ Inspection under the House and Town Planning Act is being carried out as quickly as circumstances will allow, but owing to other important and varied duties which your Sanitary Inspector has to attend to, the work is not proceeding as quickly as one would wish.

“ The following is a statement of his work during the year :—

Number of houses inspected..	..	284
Number found defective	.. ..	147
Notices served..	.. ..	152

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\* Specially reported upon by County Medical Officer of Health.

Notices complied with	..	..	120
Notices not complied with	..	..	22
Houses closed as unfit for habitation			5

“ During inspection most of the defective conditions were found in connection with the older class of house, the general defects being defective and decayed plastering, defective woodwork, floors, drains, eaves spouting and privies, defective windows, which in many cases are fixtures to rooms on ground floors, though it is only fair to say here that in numerous instances such windows have become fast through the indisposition of the tenant to open them.

“ The food stores also in many of these older class of houses are very badly placed, generally under the stairs where it is practically impossible to get sufficient ventilation and light ; also owing to the lack of a suitable coal store, the coal is often stored in close proximity to the food.

“ The scullery accommodation is very limited in connection with this class of house. In many instances one scullery is used in common for two houses and often through party usage is not kept as clean as should be. In this matter the water supply also applies. In many cases the tap is placed in a yard and probably has to supply six or even more houses, and through the inconvenience of having to fetch the water, though the distance may be trivial, water is not used as freely as it would be if taps were placed on every house sink.”

The Medical Officer of Health of Cannock Urban District writes :—“ The district is rapidly increasing in population, and although 136 houses were built during the year the requirements are not met. The houses erected during recent years are of a better type than the older properties, are connected to the sewers, and the most recent have the water carriage system, being furnished with water closets. Credit is due to the Surveyor for the work of supervision of new houses. This work is most important, and most districts are suffering from neglect of it in the past. I regret that there is no bye-law prohibiting the letting of a house for occupation until a certificate of fitness has been issued. There is a tendency for houses to be occupied too soon and while in a damp condition.

“ There is little overcrowding on space, there being few congested areas ; most of the streets are of sufficient width and well planned.

“ The question of overcrowding and shortage of houses for the working classes has been before your Council for some time. Many cases of gross overcrowding have come to my notice, and in November I presented a special report on this matter. A census of 890 houses in the district was compiled, a number of streets in different parts were visited and every house dealt with without discrimination, only three void houses were met with. It was shown that considerable overcrowding existed, and that in over 60 instances two families were residing in one house.

“ Your Council have on several occasions discussed the report, and there appears to be a general concensus of opinion that a building scheme under the Housing Acts must be undertaken. This was the conclusion to which my report led. At the same time, indications are not wanting that an unusual number of working class dwellings will be erected by private enterprise during this year.

“ There are, fortunately, very few back-to-back houses, and air space around houses is, generally speaking, ample. There is ample evidence in my possession, however, that a large proportion of the older houses are in a condition of neglect and disrepair. Systematic and thorough routine work under the Housing and Public Health Acts should result in much improvement. Owing to the nature of the community this work will always require much attention. Some of the population could well afford to occupy better houses than they do, but will not. They prefer to take life easy and live in squalor, rather than work a little harder and earn more or practise thrift.

“ To allow slum dwellings to exist is to encourage the bad habits and indolence of these people, who degrade their neighbours also.

“ There should be further provision under the law for dealing with dirty and careless tenants. On the other hand, there is another portion of the population of any industrial centre, who inhabit bad houses, not because they prefer to,



but because bad houses are cheap and the lowness of their incomes compels them to study cheapness. In other words, there is a section of the population, very likely small in number in this district, whose income, even if they devote a high percentage of it to rent, cannot get a dwelling which will satisfy the sanitarian.

“ It should be possible for these people to obtain sanitary houses such as they can keep clean and tidy and have a chance of bringing up their children decently in.”

\* In Heath Town greater activity seems to have been displayed recently by the authority in improving the housing conditions. Under the heading Housing and Town Planning Act, the Medical Officer of Health writes :—“ The powerful engine placed in our hands by this Act has been used with great vigour during the year. I have complained in previous years of over-cautiousness in the attitude of the Council, and many of my ‘ representations ’ have been unheeded. But in 1912 you formed a Housing Committee, and have gone round yourselves, and have seen that the pictures we have painted have not been too lurid. The Inspector has spent a great deal of time upon this work, details of which will be presented in his section of the report. The inertia of years has been overcome and the machine is now steadily moving. As a result many houses were closed in 1912 upon my representation, and many more this year, and others are still under consideration. Some in bad repair or causing obstruction have been demolished. Others, again, that are hopelessly insanitary, and all representations had hitherto failed to evoke a response, when the owners received a closing notice, and saw the object lesson of the demolition of neighbouring houses, the repairs have been forthwith put in hand.

“ This work has had special reference to Moseley Village. This is a detached village on the north side of the main road from Wolverhampton to Willenhall, a small triangle bounded by that road, Deans Road, and High Street, and its adjoining courts. The country around is very sparsely populated, and in some directions is quite open country for miles. But the little triangle itself was densely packed with irregular back

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\* Specially reported upon by County Medical Officer of Health.

courts without adequate breathing space, and the houses were very old, small, small-roomed, dilapidated, and until recently with practically no drainage but open irregular gutters and natural tracks.

“ The place has been our despair in former years, the statutory notices have been ignored by the owners, and not followed by more drastic measures. It has been a decaying village. Formerly the scene of busy activities, many collieries and blast furnaces. Now these have all departed, and some of the old miners remain, but their work lies in the pits in the Essington district, many miles away. There is one large hurdle works in the village, which employs many men, but this is the only industry. The Inspector states that hitherto all the dispossessed inhabitants have found fresh houses, and I have no doubt this will be the usual result, and I hope without any overcrowding. Cases of overcrowding have indeed been found. Some very bad cases, two families in very small houses, but this appears to have been due to eviction for failure in paying rent, and the dispossessed family have found refuge in another house already full. There have been no new buildings within this triangle, but there are comparatively new houses to the east and west along Willenhall Road.

“ The principle of our action has been that it is necessary to remove some of the houses in the densely congested areas, and to select for demolition those that were most obstructive and at the same time most insanitary. Much of the work has been already carried out, and when it has been completed a great change will have taken place in the complexion of the village, and our critics of a little over a year ago will scarcely know their way about. In my last report I asked the Inspector to prepare a map of Moseley Village, showing the alterations and demolitions for the year, and your Council have consented to have some copies prepared for attachment in the official copies of that report. This will show better than description the extensive character of the work. There is still much to be done, however, in Moseley Village.

“ Besides demolition, thorough ventilation has been insisted upon, and where the back of the premises abut on another property, with the owners of which no arrangements

could be made, we have endeavoured to secure this by inserting skylights, with a touching faith that sometimes these skylights may be opened. In back-to-back houses, one or both set have been demolished.”

Having called attention to further necessary work, the Medical Officer of Health adds :—“ In the absence of evidence of private enterprise, the Council should consider the question of building houses for the working classes, to supply homes for those dispossessed or about to be dispossessed.”

\* In Kids Grove it would appear that a sub-committee has been appointed to deal with the question of housing conditions, and, having set forth in summary the work which has been done, the Medical Officer of Health writes :—“ In addition to the particulars of inspections referred to in the above table, the sub-committee appointed have held a number of meetings to consider the best means of dealing with the Kinnersley Street and Hardingswood areas.

“ The work already carried out has effected a great improvement, and the whole scheme when completed will undoubtedly remove from these areas the undesirable conditions which have resulted from the haphazard manner in which dwellings were erected previous to the formation of the local authority.”

The Medical Officer of Health of Leek Urban District writes :—“ The Sanitary Committee had before them, on March 12th, 1913, a further joint report as to the housing conditions, particularly with respect to overcrowding at that time ; and they instructed us to keep the cases of overcrowding under observation for a period of twelve months, and report again to them at the meeting to be held in March, 1914. The Sanitary Inspector has accordingly visited these cases from time to time with beneficial results.

“ The housing question may be described as less acute than it was, but still existing as a long drawn-out malady. The efforts of the builders have been stimulated to a certain extent, and some gain has been accomplished by judicious exchanges of houses ; but I cannot say the condition has been adequately dealt with. This position is in part due

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\* Specially reported upon by County Medical Officer of Health.



to the failure of a firm of builders who had promised the erection of a large number of cottages.

“ Unless the builders rise to the occasion and seize the opportunity offered by the new model bye-laws they will undoubtedly invite an adequate housing scheme ; for health considerations make it imperative to sweep out as rapidly as possible every overcrowded area, and to provide accommodation for those evicted.

“ The clearing of the area known as the ‘ Cross Keys Area ’ has been commenced during the year.

“ The area known as ‘ Getliffe’s Yard,’ situate Court 5, Derby Street, has been under consideration from time to time during the year, and will probably soon be closed.”

In the report from which the preceding quotation is taken a table is introduced showing the number of inspections made under Section 17 of the Housing and Town Planning Act and under the Public Health Acts. This table is of special interest as showing how much can be done under the provisions in the last-named Acts. It appears that under Sec. 17 of the Housing Act 314 inspections were made and under the Public Health Acts 131, a total of 445. Of this total, in the case of no less than 314 properties the defects were remedied by action under the Public Health Acts.

In the Borough of Newcastle it would appear that a good deal of work has been effected during the past two years, and regarding housing the Medical Officer of Health writes :—  
“ The problem of the provision of houses for the working classes in the place of those houses done away with has been tackled by the Corporation, and the building scheme adopted for the area on the Lower Green will help to remedy the existing state of affairs.”

In the report of the Medical Officer of Health of Quarry Bank it is satisfactory to find a statement showing that the practice of forwarding information regarding cases of apparent overcrowding and insanitary conditions discovered by the County school medical staff and by school nurses is appreciated. The Medical Officer of Health states that through these channels valuable information is received. With reference to overcrowding, the same Medical Officer of Health

writes :—“ Although the census returns prove a progressive and considerable reduction of persons per inhabited house the routine inspection has shown that overcrowding is shockingly prevalent in certain streets ; it is not rare to find unmarried adults of both sexes occupying the same bedroom, or four or five persons crowded into a space scarcely sufficient for two. A common practice is for two young families to occupy a house containing two bedrooms only, although enquiries do not seem to indicate that this is required on grounds of economy. There does seem, however, to be some lack of houses of low rental suitable for the poorer artisan class. Special references were made in my reports for October and November last as to the existence of overcrowding, and on December 2nd the Council resolved ‘ That special letters be sent to the landlords and tenants concerned, finally warning them that overcrowding could not be allowed to continue, and unless remedied with as little delay as possible the Council would be compelled to institute the necessary legal proceedings.’ ”

The Medical Officer of Health of Rowley Regis writes :—“ The operations under the Housing Acts have, during the past year, been fraught with considerable difficulty, due to a dearth of suitable houses for the dispossessed tenants where closing orders have been enforced, and further, the number of new houses erected have been inadequate, owing probably to the great improvement in the trade of the district.

“ Many of the houses dealt with were of an obsolete type and generally dilapidated, the means of ventilation being markedly inadequate and the absence of damp courses almost a general condition. There are, undoubtedly, houses in the district which would be better closed and demolished, but owing to the shortage of housing accommodation, specifications for repairs and alterations have been served on the owners, giving them an opportunity to render the said houses habitable.”

The Medical Officer of Health of Short Heath writes :—“ I would like to direct the Council’s attention to the deplorable state of Hunts’ Lane, which in bad weather necessitates a considerable gymnastic feat on the part of anyone desirous

of reaching the houses situated there. Although as I understand the lane has not yet been taken over by the Council, possibly something might be done to mitigate the lot of those who live in the lane and have to pass up and down it.”

\*Under this heading, the Medical Officer of Health of Smallthorne writes :—“ The time has arrived when I consider your Inspector ought to have some assistance ; this matter was discussed at one of your meetings but the assistance then asked for was not forthcoming and the work of your Inspector continues to increase.”

The Medical Officer of Health of the Borough of Stafford writes :—“ During the year approval was given by the Local Government Board to plans for the erection of 60 working-class dwellings. Twenty are being erected in each of the following streets :—Blakiston Street, Harrowby Street, and South Back Walls. Those in South Back Walls are being let at rentals of 3s. 9d. and 4s. 3d., according as they have two or three bedrooms, and they are being used to house the tenants displaced from condemned property. In my report last year I insisted that these twenty houses could only be regarded as really a small instalment of the number I should require in order to carry out the work of getting the poorest of the people into sanitary houses. I am glad to have received your early acknowledgment of my contention by your agreeing to erect another batch of forty of the class I require, as soon as the land is obtained and the necessary formalities have been carried through with the Local Government Board. I should in this connection like to express my appreciation of the liberal view you are taking of your responsibility in this matter of placing under more favourable surroundings those who have been submerged all these years. The long and repeated discussions on the problems connected with housing the poorest class have not only had the effect of bringing practically the whole Council into sympathy with the views I expressed at the beginning of this movement, but they have also created a strong public opinion which is acting as a driving power to insist on the provision of a sanitary house and surroundings for every family. But it is not enough to provide the bricks and mortar of a sanitary dwelling necessary

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\* Specially reported upon by County Medical Officer of Health.



as that is admitted to be. The majority of these people have never lived in a clean house. As children they never knew the condition, and now as adults they do not aspire to what is altogether foreign to their experience. Our responsibility, therefore, does not stop when we have provided the house. This advance has been brought about by an enlightened public opinion. But to bring about an improvement in the home conditions it is necessary to create another opinion, and in this case it must be that of the children, and especially the girls. At the risk of frequent repetition I would say it is a practically hopeless task to try to inculcate habits of cleanliness into the present generation of slum tenant. This is essentially an age of preventive medicine, and if we desire to abolish slums in the next generation we must begin *now* by educating the children and fostering in them ideals of home comfort and moral cleanliness which will make them dissatisfied with their present surroundings and induce them to aspire to a wholesome environment, and perhaps to create it in their present home in spite of the parental dead-weight against them. Unfortunately, in Stafford we have lost control over our Schools; but is it altogether impossible to secure the help of the Education Authorities to teach the girls at any rate by practical classes how to wash and scrub and generally to keep a house clean, sweet, and ventilated, the reason for it, and why food also should be not only cooked properly and stored properly, but served up in a clean state and taken into a clean body. When that is accomplished I believe the solution of the slum question will have been found. That this is no picture-drawing or dream let me give a practical instance of my contention. A child of three years was admitted into the isolation hospital last year from a squalid home—a wilful, intractable, rebellious child. Under firm but kind treatment it rapidly became amenable to discipline, became a model of cleanliness, and one of the happiest of children. When eventually its mother came to take it home the poor child wept and asked not to be taken back to the dirty house. A truly pathetic story, which tells its own moral.”

The Medical Officer of Health of the Borough of Tamworth writes :—“ The need for more houses for the working

classes is admittedly very great. For the last few years nothing has been done, nor does there seem a likelihood of anything being done in this direction by private enterprise. In order to meet this emergency, your Council have therefore instructed your Surveyor to prepare a scheme for the further development of the land owned by the Corporation in Bradford Street, and it is hoped that some sixty houses will eventually be erected on this site.”

It is satisfactory to find in this report, as in others, an acknowledgment of the value of the information sent to the Medical Officer of Health as the outcome of the work of the school medical inspectors and school nurses.

\* The Medical Officer of Health of Tipton Urban District writes:—“ The district is essentially an artisan one, the few higher rented houses being inhabited by professional men, or by work’s managers who have been obliged to stay in the place to be near to their works. It follows, therefore, that the class of house is poor and that the difficulties in keeping them in a sanitary condition are much greater than in districts which are of a more residential character. A great militant factor against sanitation and general improvements in house dwellings comes from the fact that in times gone by many houses were built by well-to-do and steady men, who in their prime could afford to build a house or houses, but when old and not wage earning could not keep up the necessary repairs, improvements, etc., and at their death have willed the property to several children who have been too poor to do anything more than pay for the mortgage.”

Later, in the same report, the Medical Officer of Health writes:—“ Dr. Reid, County Medical Officer, made a general inspection of the district at the end of the year, having been preceded by the County Inspector, who had prepared a report for him as to the condition of many of the most insanitary portions of the district ; when accompanying him, he expressed his surprise at so many minor examples of insanitary conditions, and on learning the scope of duties that the Sanitary Inspector was called upon to perform he said that no one man could possibly perform them, that to keep the

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\* Specially reported upon by County Medical Officer of Health.

district reasonably clean at least one other inspector was required, whose duty it should be to live on the road, systematically to inspect properties and follow up all reported cases, and to force landlords and tenants to keep the surroundings of the houses healthy.

“ When he presents his report to you I very much hope that in this matter you will freely consider his advice and appoint an inspector under Mr. Clifton who will undertake all of the necessary detail work and so leave Mr. Clifton time to attend to the duties pertaining to his office. We require sanitary inspectors infinitely more than the well-to-do inhabitants of a residential district.”

In Blore Heath Rural District it is said there is still a shortage of good houses for the working classes.

The Medical Officer of Health of Cannock Rural District writes :—“ Without a doubt, the question of more suitable housing accommodation in the district will have to be faced, and the public authorities will have to consider the question of providing suitable cottages. Directly this problem is grappled with, it will be necessary, in the interests of public health, to consider the condemnation as unfit for human habitation of several cottages in the more rural areas, and of groups of cottages in such a parish as Cheslyn Hay, where the population is more concentrated.”

In the report of the Sanitary Inspector of Cannock Rural District, which is embodied with that of the Medical Officer of Health, it is satisfactory to note that the handing on information regarding insanitary conditions reported by the school medical inspectors and nurses is appreciated. The Sanitary Inspector writes :—“ During the year I received information through Dr. Hosegood, from Dr. Reid, County Medical Officer of Health, of two cases of children attending school with verminous heads and dirty clothing and bodies, evidently indicative of bad home conditions.

“ I found the bedding and mattresses at one of these houses to be so filthy that I ordered it to be destroyed, and this was done and new beds and mattresses were obtained by the occupier, and the house and everything in it I caused to be cleansed with disinfectant, which I supplied. I have paid



several re-visits, and found a great improvement maintained.

“ In the other case the house was dirty, and this has been cleansed.”

In Leek Rural District it is said that, except in the case of the Norton area, there does not seem to be any demand for additional houses.

The Medical Officer of Health of Lichfield Rural District writes :—“ I have received through the County Medical Officer a large number of communications from the school medical officers, giving the names of children who were found to be verminous, and recommending the desirability of investigating the sanitary condition of their homes. This was done in every case reported.”

The following extract relates to a village in the Lichfield Rural District :—“ I found the general sanitary condition of Yoxall to be very far from satisfactory, and I was not at all favourably impressed with the conditions prevailing at the rear of many of the houses.

“ The houses forming the subject of this report numbered 61. They were, almost without exception, old, and the condition of some will necessitate inspection under the Housing and Town Planning Act. In addition to the above, 30 others were also inspected, but as they were some little distance away, they have not been included in this report. Many of these houses were in a dilapidated condition and should also be dealt with under the Housing and Town Planning Act.”

The Medical Officer of Health of Kingswinford Rural District writes regarding overcrowding as follows :—“ Thirteen cases of overcrowding have been discovered, nine of which have been remedied, and the remaining four are being dealt with. I am indebted to the County Medical Officer of Health for sending me on reports of possible overcrowding, received by him from the school inspectors.”

The same Medical Officer of Health, in referring to the question of housing generally, says :—“ A hundred and thirty-five houses have been inspected under section 17, and five closing orders have been made. Six houses have been voluntarily closed by the owners, four houses have been made fit for habitation. Forty-seven defects have been

remedied after closing orders, eighty-one houses have been repaired without closing orders, five hundred and eighty-three defects have been remedied under section 15, and seven houses have been demolished. In addition to the hundred and thirty-five houses systematically inspected, two hundred and ten houses have been inspected and properly drained and any other defects found remedied. There are still some back-to-back houses in the district and some which are just habitable ; these are carefully watched and kept in as good a condition as possible. The Nagersfield property at the top of Brettell Lane is still being developed as a building site, a good class of house being built. Building operations of a good class are going on actively in the Kingswinford portion of the district.’’

The Medical Officer of Health of Mayfield Rural District writes :—‘‘ None of the houses inspected were considered to be in a state so dangerous or injurious to health as to be unfit for human habitation. The structural defects were, respectively, dampness owing to ground at back of houses being above the ground floor, defective roofs and walls, defective stairs and bedroom floors.’’

The following satisfactory statement appears in the report of the Medical Officer of Health of Seisdon Rural District :—‘‘ The house-to-house inspection of all the working-class houses in the district was completed in 1912 ; parish by parish having been inspected. Nine hundred and fifty-eight houses have been re-inspected, and it was found that 91 per cent. of the notices already served had been complied with satisfactorily ; besides which 553 inspections have been made in the ordinary routine of work.

‘‘ Independent of the Housing Act, notices were served in respect of 362 nuisances.’’

In Stafford Rural District it is said that the demand for houses is being met by private enterprise, and that there is reason to believe that it will continue to be so.

The Medical Officer of Health of Stoke-on-Trent Rural District writes :—‘‘ Cases of overcrowding to the number of 11 were all promptly dealt with. This is attributed to two principal factors :—(1) The influx into the district of residents from

surrounding towns, who on account of a scarcity of houses in the district, take up lodgings with inhabitants of the district, and thus bring about overcrowding ; (2) the overwhelming preponderance of the number of births over the number of deaths in the district, which has been a predominant feature of the vital statistics of the district for the past few years, in vivid contrast to the declining birth-rate in other districts. The increase in the housing accommodation in the district is out of all proportion to the increasing birth-rate, the number of newly-erected houses being utterly inadequate to cope with the demands for the same. In view of the increasing facilities for travelling in and out of the district now provided, and in view of the daily increasing demand for houses in the district caused thereby, and having special regard to the growing population, I would urge upon your Council the advisability of considering a Town Planning Scheme under the Housing and Town Planning Act, 1909, with a view to combat the evil effects of overcrowding, and to provide the working classes with dwellings wherein water carriage would supplant the present obsolete conservancy system, moveable receptacles would take the place of the existing fixed receptacles for refuse ; and due regard would be paid to efficient ventilation and lighting, which have such a paramount effect on the health of the inhabitants. The district affords, happily, many excellent sites for the erection of modern dwellings for the working classes, and there should be few obstacles in the way of carrying out a scheme for building such cottages. Houses are urgently needed to replace some of those apologies for houses at present existing. In a couple of dwellings I inspected there were no backyards to speak of, and the privies were situated in such close proximity to the houses as would be positively detrimental to one's health. If the scheme alluded to above were carried out, the future erection of such insanitary houses would be entirely done away with, overcrowding of rooms would be prevented, the incidence of infectious diseases would be reduced, a definite minimum cubic space would be allotted per head, and the Council would have made a substantial progress in the provision of healthy houses for the rural working populace."



The Medical Officer of Health of Stone Rural District writes :—“ The inspection of houses under Section 17 of the Housing and Town Planning Act has been systematically carried on throughout the year, and is now, with the exception of some outlying villages, practically complete.

“ The number of houses are in my opinion sufficient for the needs of the population, and though the condition of some of the older ones is not all that could be wished, I do not think that I am justified in condemning houses as unfit for occupation when the expenditure of a comparatively small sum will remove the more glaring defects.

“ From the districts of Cotes Heath and Shallowford complaints are heard as to a shortage of cottages. These villages are situated close to railway and the demand for houses chiefly comes from their employees.”

Under this heading, the Medical Officer of Health of Tamworth Rural District writes :—“ The defects discovered were frequently due to decay and neglect in not having needed repairs attended to, including leaking roofs, broken and deficient spoutings, defective chimneys, broken walls, ceilings, stairs and floors, and dirty interiors, and windows not made to open, badly paved yards, and other general dilapidations, and in the older properties the sanitary arrangements were usually defective, and the buildings dilapidated.”

The same Medical Officer of Health, under the heading Medical Inspection of School Children, also writes :—“ In addition to details in connection with tuberculosis in various relations, I have received information from the County Medical Officer as regards the want of personal cleanliness of some of the children and a hint as to possible insanitary conditions to be found at their homes which has proved very useful.”

The Medical Officer of Health of Uttoxeter Rural District writes :—“ This matter has received greater attention during the year, and a larger number of cottages has been inspected, and necessary steps taken. Of the various houses inspected, 23 were found to be defective in matters other than drainage and water supply ; only in one case has it been necessary to issue a closing order ; and in all cases either the necessary

work was done or was receiving the attention of the owner at the end of the year. As an indication of the methods adopted and the course we are pursuing, details are appended of defects to which the attention of owners has been drawn, viz. :—

Additional ventilation and windows .. ..	12
Dampness in walls .. ..	3
Roofs to be repaired or raised .. ..	11
Dilapidations to walls, floors, stairs, etc. ..	13
Sanitary accommodation .. ..	6
Unfit for habitation .. ..	1
Overcrowding .. ..	2
Paving of areas .. ..	4
Removal of household refuse .. ..	5
Foul conditions .. ..	4
	—
	61

“ It is hoped that more houses may be dealt with during the coming year, but the intention is to pay first attention to those houses which are known to be most in need of improvement, as this appears the most equitable course to follow, and progress may be apt to appear slow for a time.

“ From the observations that have been made, the principal faults are lack of proper ventilation in bedrooms and dilapidations in walls, floors, ceilings, and staircases. There are a great number of old iron-framed windows that do not fit properly, and in numerous cases the frames are found packed with paper to keep the draughts out, and the occupiers will not open the windows for fear of having to do all the packing again. There is a considerable number of houses without windows made to open.”

#### EXCREMENT AND REFUSE DISPOSAL.

I have called attention in my preliminary remarks to the satisfactory advance which has taken place in the system of dealing with excrement and refuse in some districts. This subject has received considerable attention in my previous reports, but, as it is one of such supreme importance from

a health point of view, I propose to notice, very fully, the paragraphs in the reports under review which deal with it.

In Amblecote moveable bins are now general and these are emptied weekly. Privy middens have been entirely replaced by water closets except in isolated places where sewers are not available.

In Audley house refuse is removed fortnightly by the District Council's own men, and every effort is being made to induce property owners to provide covered bins, which in all cases are provided for new houses.

The Medical Officer of Health of Biddulph writes:—  
“ The County Medical Officer of Health points out in his report that money would be saved if a loan were taken up for the general establishment of the water carriage system. The Local Government Board is pressing the same advice upon local authorities everywhere. The Biddulph Council will be wise to consider the matter one of some urgency. Certainly, as regards all new property built in the future, the water carriage system must be the only one allowed; and it would be well to strengthen the Surveyor's position by passing a formal resolution to that effect.”

In Bilston it is stated that about one-half the district is on the water carriage system, and the Medical Officer of Health says:—“ The disgusting privy middens . . . . . are steadily being removed.” During the year 351 water closets were substituted for 212 privies and 98 pail closets.

The Medical Officer of Health of Brierley Hill writes:—  
“ Now that the water carriage system is being rapidly established, the old privy midden, which was such an ever-recurring cause of complaint, is being abolished. Ash bins are being substituted, moveable, with proper coverings, and appear to be giving general satisfaction. There is a regular weekly removal. This work is done by the Council's own employees. A contractor is responsible for the removal of all other house refuse. There are no complaints.”

It is satisfactory to find that the type of water closet which is being fixed in Brierley Hill is one with a proper flushing cistern, and that in the whole district there are only 19 slop closets.



The Medical Officer of Health of Brownhills writes with reference to the objectionable method of depositing night-soil, &c., on the roads during the process of removal as follows :—  
“ As regards the method of removal, I can only repeat the comments I made in last year’s report. In answering the special representation made by the Public Health Committee of the County Council the District Council’s reply was that they saw no reason why this method should be altered.

“ As Medical Officer of Health, I feel that a further attempt ought to be made to alter this opinion of the Council, and I now suggest that some at least of the Health Committee and the Sanitary Inspector should visit a neighbouring authority where the bin system is at work and judge of the two methods. I am quite sure that they would become converts to the much more sanitary system. The little extra expense would be fully compensated by cleaner and more healthy roadways, entries, and courts.

“ I am pleased to report that many of the old uncovered ashpits have been done away with, although there are still far too many in the district. These will, however, gradually be eliminated by the Sanitary Inspector’s house-to-house inspections.”

The Medical Officer of Health of Cannock Urban District strongly urges his authority to adopt a more active policy in substituting water closets for privies ; he condemns the practice of depositing excrement, &c., on the roads in the process of removal ; and he strongly advocates the provision of a destructor on hygienic and economical grounds.

In Darlaston, which years ago was one of the worst privy midden towns in the county, it is satisfactory to hear that at the present rate of progress of conversion in the district, (with the exception of Moxley, which is not yet sewered), water carriage will be completely established.

The Medical Officer of Health of Heath Town writes :—  
“ The Inspector tells me that already the abolition of so many privies has very materially lightened the cost of scavenging. I hope that during the next year or two we may be able to report that the last privy or ash closet has been abolished.”  
This, of course, is a very satisfactory statement, but it is to

be regretted that there are so many waste-water closets in the district, there being no fewer than 1,060, compared with 281 clean water closets. Moreover, it still seems to be the policy of the authority to permit the introduction of the former objectionable type, for, while only 30 of the clean type were provided during 1913 no less than 91 of the dirty type were fixed.

The Medical Officer of Health of Leek Urban District writes :—“ The offensive uncovered ashpits are being abolished as quickly as possible. Suitable covers of tarpaulin are provided for the ashes carts. The shop refuse, consisting chiefly of paper and cardboard boxes, is now called for separately from the ashes, which greatly facilitates its collection.

“ The disposal of refuse consists in its being emptied on the ‘ tip ’ at the sewage farm. It is covered with soil almost as it is tipped.”

The Medical Officer of Health of the City of Lichfield, where water carriage is practically universal in the populous part, writes :—“ A two-cell Heenan & Brondel ‘ V ’ trough grate refuse destructor has been erected, and is effectually dealing with all house refuse. The clinker, after burning, is of excellent quality, and is being used at the sewage works in the filter beds.

“ All house refuse, ashes, &c., are removed by the Corporation carts twice a week, and all ashpits, cesspools, and privies, are emptied by the Corporation employés on request, and are treated in the destructor.”

In the Borough of Newcastle it would appear that in one year hence there will be no privies in the district. The Medical Officer of Health writes :—“ During the year 164 privies and 40 pail closets have been converted into water closets. This work is of the greatest import from the sanitary point of view. As regards disposal of excreta, it is the prime object to have these removed from the vicinity of the dwelling houses with as much expedition as possible, and this can be done efficiently only by the water carriage system.”

The Medical Officer of Health of Quarry Bank writes :—“ A special committee has been formed for the purpose of pushing the introduction of water closets. Privy middens

are still abundant. The annual number of conversions is somewhat increased, but is altogether inadequate.”

Later, in the same report, the following appears :—“ The number of conversions from privy middens to w.c.’s is rather more than in late years, but progress is painfully slow, and privy middens of a wretched type are plentiful.”

Also, in commenting on an outbreak of diphtheria which had been prolonged since 1911, the same Medical Officer of Health writes :—“ Privy middens are found at most of the affected houses. Although the idea that a bad smell could directly and by itself cause an attack does not now find acceptance, there is not the least doubt that insanitary conditions can so reduce resistance as to render a person more susceptible to it and increase the danger of the disease when contracted. I urge you, therefore, to treat this disease as summarily and as thoroughly as you did enteric fever in 1895, when surface wells were closed wholesale, regardless of vested interests, and enter now into as bold and unswerving a campaign against that sanitary curse of your district—the privy midden.”

The Medical Officer of Health of Rowley Regis writes :—“ The objectionable privy midden is slowly but surely becoming a thing of the past, and the sooner they are all removed the better for the general health of the district, as they are a constant source of soil contamination and danger.”

The following quotation from the report of the Sanitary Inspector of Rowley Regis, which is embodied in the Medical Officer of Health’s report, ought to encourage those less active authorities, illustrating, as it does, the well-known fact that privy abolition leads to economy :—“ There can be no doubt the cost of removing refuse from privies is considerably greater than that of the removal of dry refuse ; consequently, the abolition of privy middens is not only beneficial from a health point of view, but a distinct gain financially, as will be seen from the following table :—

From 1906-1909 the cost of removal was £1,859 per year.

„ 1909-1912 „ „ £1,669 „

„ 1912-1913 „ „ £1,519 „

„ 1913-1914 (March 31st) „ £1,499 „

“ Therefore the total amount saved from April 1st, 1909,



to the expiration of the present contract on March 31st, 1914, has been £740.''

The Medical Officer of Health of Smallthorne writes :—  
“ The ‘ conservancy ’ method is fraught with danger and can never prove satisfactory, and I have frequently in my reports drawn your attention to the dangers attending the manner of collection and distribution as practised in your district. The pans are emptied by means of a bucket into a cart, the cart perambulates your streets to some field and the contents are then distributed broadcast over grass land. I believe that in the future water carriage will become compulsory. During the last few months this question has been discussed at your meetings and I am pleased to notice that there is now an intention to adopt the water carriage system and that you have resolved to consult a sanitary engineer as to ways and means. This is a step in the right direction. Numerous ashpits have been done away with during the year and ash bins provided which are emptied weekly. I have several times drawn your attention to the need there is for a ‘ destructor.’ ”

In Stone Urban District the work of systematically converting pail closets into water closets is in progress. Here, also, the authority are doing their best to induce owners of property to substitute moveable for fixed receptacles for refuse.

The Medical Officer of Health of the Borough of Tamworth writes :—“ As may be seen from your Sanitary Inspector’s report, considerable work has been accomplished towards the abolition of privy middens, and the substitution of water carriage. In most cases this has necessitated new and additional drainage. Covered dust bins have been provided for the house refuse, and are emptied weekly. There were few cases of infantile epidemic diarrhœa, partly, no doubt, due to favourable climatic conditions, but some credit may be taken for improved sanitary surroundings. These results are encouraging and every effort should be made to hurry on the abolition of the remaining privy middens and pail closets with as little delay as possible.’ ”

In Tettenhall there are now a large number of water

closets, and it would seem that the District Council are pushing on the work of conversion.

The Medical Officer of Health of Tipton, in referring to the completion of the new sewerage scheme (except at Summerhill and Princes End), points out that the much-needed improvement in the methods of excrement disposal is now possible. According to the report of the Sanitary Inspector the work is being pushed on and he hopes to be able next year to call attention to material progress in this direction.

It would appear from the report of the Medical Officer of Health of Uttoxeter Urban District that, unless greater activity in conversion takes place, the abolition of privies will take fourteen years to complete.

In the Borough of Wednesbury, also, the rate of progress in this direction is slow and ten years will be required to complete the work at the present rate.

In Wednesfield, it is said that the conversion work is proceeding satisfactorily. This has been simplified by a reduction by the Wolverhampton Corporation in the charges for water for wash-down closets of from 10s. to 5s., and upon the strength of this, the District Council have wisely determined not to allow any more waste-water closets to be fixed.

I am glad to be able to quote the following from the report of the Medical Officer of Health of Wolstanton :—“ It is proposed to effect the conversion of privies into water closets throughout the district as soon as possible, and with this view portions of the district are to be taken in hand each year. This year the May Bank portion of the Wolstanton District has been undertaken, and of the above mentioned conversions 150 have been at this place. The Council pay £1 towards the cost of each conversion, except in cases where such conversion is the result of an existing nuisance. The following figures show the increased work that has been done in this direction since 1909 :—

“ In 1909, 25 privies were converted into water closets.

1910, 40	„	„	„
1911, 128	„	„	„
1912, 130	„	„	„
1913, 416	„	„	„

The Medical Officer of Health of Leek Rural District writes :—“ The pail system is now generally adopted in the Norton District, and it is desirable that this system should be generally adopted. There is urgent need for steps to be taken in this direction, and in villages a proper system of scavenging is highly desirable.

“ I cannot make the absolute necessity of vigorous action clearer than by quoting the weighty words from the circular of the Local Government Board in reference to epidemic diarrhoea amongst children (August, 1911) :—‘ It is not necessary to do more than mention the importance of efficient scavenging, of frequent, and, if practicable, daily removal of house and stable refuse. The Council may consider it advisable during the next few weeks to divert the Sanitary Inspectors from less urgent work, and to instruct them to make rapid visits, with a view to securing efficient sanitation in and about the houses of the working classes.

“ In some of our districts the difficulty of obtaining permission to deposit night-soil on land leads to overful privies. It would be well if a collective effort, either by the sufferers themselves, or by the Council on their behalf, were made to overcome this difficulty.’”

The Medical Officer of Health of Lichfield Rural District writes :—“ When the sewage schemes at Streetly and Burntwood are completed, all the villages in your area will then possess a water carriage system more or less extensive according to the size of the village. In places where a complete system of disposal is installed, modern water closets are rapidly replacing the privies, but in certain smaller localities the disposal arrangements now in existence will not allow this to be done. The following statement gives the number of water closets provided since I have had the honour to act as your Medical Officer of Health :—

1910	..	..	..	134
1911	..	..	..	147
1912	..	..	..	60
1913	..	..	..	46



“ Your Sanitary Inspector in his report gives the number of conversions during the past six years as between 400 and 500.

“ The type of water closet used in this district is the wash-down, provided with a two-gallon flush.

“ As mentioned above, there are certain sections of this district where the water carriage system is not sufficiently developed to allow water closets to be connected to it, or if this can be done the capacity of the disposal works is insufficient to allow extensive conversions to be made. Yoxall may be quoted as an example of the former and Hazel Slade of the latter. It follows, therefore, that in these areas privies have to be tolerated, and the best that can be done at present is to see that they are made as sanitary as possible. When the reconstruction of a privy is undertaken the work is done in a very thorough manner.”

Later, in the same report, the following paragraph appears :—“ With regard to public scavenging in the larger villages, your Council invited the various Parish Councils to express their views on the subject, and as they unanimously replied that in their opinion it was not necessary, no action was taken.”

From this it would appear that the Parish Councils in the Lichfield Rural Area do not differ from those in many other areas in paying more regard to economy than to the sanitary needs of their parishes. When Parish Councils were instituted by the Local Government Act, 1894, it was thought that self-interest would lead them to bring pressure to bear on backward authorities to provide at least the minimum sanitary requirements throughout their areas, but, far from this being the case, the fear of possible increased local rates has weighed with them more than a desire to benefit the public health, and in place of being a help they have in most cases proved a hindrance to progress by affording a convenient excuse for procrastination on the part of their respective district councils, and, in the end, any advance which has taken place has been in spite of rather than in consequence of the action of parish councils.

In the Newcastle Rural District, it would appear that

numerous privies have been abolished during the year and water closets substituted.

The Medical Officer of Health of Seisdon Rural District writes as follows with reference to excrement and refuse removal in the village of Wombourn :—“ I am pleased to be able to report that you have now undertaken this work, and have appointed a contractor for the purpose. This should bring about a great improvement in the sanitary conditions of the parish, as the accumulations will be removed much more often than formerly.”

The Medical Officer of Health of Stafford Rural District states that recently the hamlet of Doxey has been constituted a special area and the refuse is now removed by contract from 130 houses.

In the Tutbury Rural District it is stated that during the year arrangements have been made with contractors for refuse removal at Branstone and Stretton, “ to the immeasurable benefit of these two villages.”

The Medical Officer of Health of Walsall Rural District writes :—“ I am pleased to report that further progress has been made in the replacing of insanitary and offensive privy closets with water closets. The Council set aside a day once a year for the inspection of the district, when I accompany them, and I have taken the opportunity of calling their personal attention to some of the more glaring defects in this respect. I must congratulate them on the interest they have taken, and on their desire to back up my efforts to still further increase this very desirable change.”

The practice of this Council in visiting the district yearly to make themselves acquainted with the prevailing conditions is well worthy of imitation.

#### SEWERAGE AND SEWAGE DISPOSAL.

Through the initiative of the County Council, large sums of money have been spent in providing for the better disposal of the sewage of the various districts, and it is satisfactory to be able to report that, almost without exception, the works which have been provided have efficiently fulfilled their purpose. In my introduction to this report I have

indicated generally the present position of the County in this respect, and to attempt to give a more detailed account of the situation would exceed the limits of a report such as this. As the Council are aware, the question is continually before them in the reports of the Public Health Committee, and it must not be supposed, by those who are not members of the Council, but to whom this report is sent, that the short reference to the question herein contained in any way represents either the vast amount of work which has been done or the labour which such work has entailed.

The question of sewerage and sewage disposal, although of the utmost importance from a health point of view, concerns the surveyors of the various districts rather than the local medical officers of health, and for this reason it does not, as a rule, receive very prominent mention in the reports under review, although most of the reports contain favourable comments upon the new works which have been provided, while in some others reference is made to the need for, or the prospective provision of, new works.

The Medical Officer of Health of Amblecote states that practically the whole of the houses are now connected with the sewers and the conservancy system is entirely abolished.

The Medical Officer of Health of Biddulph calls attention to the satisfactory working of the sewage disposal plant, but points out that, in view of the increasing population, it is desirable that an additional filter be provided without delay. As regards Biddulph Moor and Horton he writes :—" Negotiations with the Leek Rural Council have proved fruitless. The nuisance therefore continues, viz., sewage from certain houses in Horton running into the roadside and land in Biddulph. Legal proceedings against the Leek Rural District Council appear to be the only solution ; but I think the question should be taken up by the County Council, as there is no doubt the fear of an unknown expense will prevent the Biddulph Council from acting."

The Medical Officer of Health of Leek Urban District states that the two areas, Black Acres and Novi Lane, mentioned in previous reports as requiring sewers, have now been sewered, the former by the District Council and the latter by a private owner.



The Medical Officer of Health of the Borough of Lichfield writes:—"A new filter bed, 120 feet in diameter, is now being constructed to deal with the increased flow, and should be completed by the end of March.

"The sewerage of the Gallows Wharf District and Short-butts Lane has been completed."

The Medical Officer of Health of the Borough of Tamworth writes:—"During the early months of the year there were several floods, to which the low-lying parts of the Borough are liable, especially during wet seasons: all the meadows in the neighbourhood of the rivers Anker and Tame, bordering on the borough, were submerged, and during the time of the largest of these floods, parts of Bolebridge Street, Lichfield Street, Lichfield Road, and Clarson Street were flooded, some of the houses in these streets being inundated as well.

"In addition to the danger to health from the dampness and from the foul miasma and disagreeable odours arising from the filthy deposits left after the floods have gone down, considerable damage is done to the streets, and much inconvenience and some danger caused to pedestrians.

"The question of how best to clear the river beds, and by the removal of various obstructions improve the flow of the water, has received considerable attention from your Weirs Committee. By their direction, Mr. Clarson made an inspection of the rivers Tame and Anker, and submitted a report showing to what a great extent their courses were obstructed by various scours, mud-banks, fallen trees, and overhanging branches; and by deposits from the rivers themselves, whether during their normal flow or during flood times, which have raised their beds, and by limiting their carrying capacity, have increased their liability to overflow.

"The river Tame in the vicinity of Hopwas bridge has become greatly obstructed, and the water-way narrowed by the formation of an enormous accumulation of solid deposits constantly increasing, which have formed large islands in midstream, thickly planted with willows.

"The necessity for clearing away these obstructions to the free flow of the river is perfectly obvious, and has become

an urgent one. Your authority by your share in the purchase of the Comberford weir lower down the river, part of which has been washed away during a flood, effected an improvement in this direction. The question, however, of the removal of the obstructions at Hopwas bridge, and of the other obstructions generally is one which it is felt can only be undertaken by an authority formed specially for this purpose, and provided with powers to enable this work to be carried out over a very large area.’’

The question of the removal of obstructions, artificial and otherwise, to the free flow of rivers is one of considerable importance, and until something effective is done in that direction the full benefit from the enormous expenditure in providing sewage disposal works throughout the county will not be experienced. At present the work is no one’s business, and I fully endorse the opinion of the Medical Officer of Health of Tamworth that a special authority should be appointed to undertake the work. This, doubtless, could only be brought about by either a general or local act of parliament, and in the absence of the former it is well worthy of consideration whether the County Council, in co-operation with the County Borough Councils, should not promote a private bill for this county.

I quote the following from the report of the Surveyor of Wednesfield which is incorporated in that of the Medical Officer of Health :—‘‘ Now it may be possible to obtain electric current close at the farm, the Council should consider the provision of two ejectors for raising the effluent to the high-level ground, which up to the present has not been used. Owing to the large area of land at the Council’s disposal, much of which has not, up to the present time been used, I do not consider it necessary to make any serious alteration in the system—except the provision of ejectors, which would cost about £300.’’

The Medical Officer of Health of Leek Rural District writes :—‘‘ During the year there were 14 cases of pollution of streams. Notices were served, and complied with, except in the case at Biddulph Moor, which is still under review.

‘‘ A joint system of the drainage of this district with

that of the adjoining district of Biddulph, is now being prepared by the Surveyor."

With reference to last paragraph quoted, it should be read in conjunction with the comments of the Medical Officer of Health of Biddulph on the same matter (p. 90). It would seem that joint action on the part of the two authorities is contemplated.

The Medical Officer of Health of Seisdon Rural District writes under the heading "Sanitation":—"The most important item under this heading is the Kinver sewerage scheme, which is now nearing completion, and I understand you have entered into further contracts for the construction of a sewer to the Lock, a much-needed addition, and also for the making of the house connections.

"The further sewer to the Lock will enable proper sanitary conveniences to be provided by the Tramway Company at the terminus of the light railway."

It would appear from the report of the Medical Officer of Health of Stone Rural District that a scheme of sewerage and sewage disposal for Rough Close and Meir Heath has been approved by the Local Government Board.

The Medical Officer of Health of Uttoxeter Rural District writes:—"No further progress has been made with Rocester sewerage scheme. The necessity for carrying out a proper scheme for the disposal of sewage and improving the sanitary condition of the village still exists."

#### WATER-SUPPLY.

The following is a summary of the remarks with reference to water-supply in those districts where the subject receives most notice in the reports. The Public Health Committee of the County Council have frequently had occasion to spur on authorities in districts where good public supplies are available, but where many old local wells which are liable to pollution are in use.

The County, as a whole, is well supplied with water. The two large companies, the Potteries Water Works Company and the South Staffordshire Water Works Company respectively, cover wide and populous areas, and outside these areas



various local authorities have provided supplies of their own. It is chiefly in certain widely-scattered rural areas that any real difficulty now exists.

The Medical Officer of Health of Brownhills writes :—  
“ The South Staffordshire Water Works Company supplies the district. It is a constant supply, comes from deep borings, and there is no possibility of lead contamination. There are 83 wells in the district, a decrease of three since last year.

“ At a Health Committee meeting it was agreed that each month samples of water should be taken from some of the wells and tested as to the fitness of the water for drinking purposes. Since that time nine samples have been taken, all of which were condemned. Three of those nine wells have been closed and the public supply substituted. With one exception, I think that owners of the other six wells intend laying on the public supply. The exception is the well in connection with the small-pox hospital, and as the public supply is not available there the Council have given the Surveyor instructions to have the well emptied and reconstructed and also to have the spring that feeds this well tested.

“ This periodic testing of the wells of the district is certainly a move in the proper direction, but at the best it is a cumbersome and lengthy method of dealing with a matter on which there should be no difference of opinion. I am certain that all of these 83 wells will be found at some time to be polluted.

“ I may here state that many more of the wells would have been tested and reported upon, but the Sanitary Inspector's work in this direction was interrupted by work in connection with infectious disease, to which he has had to give the greater part of his time.”

In the Cannock Urban District, where the South Staffordshire Company's water is available, the Medical Officer of Health states that as it cannot be supplied to Pye Green by gravitation the cost would not be reasonable, and he adds that “ the position is not a safe one from the point of view of public health.”

The Medical Officer of Health of Quarry Bank writes :—  
“ Of the 1,535 houses supplied by the water companies, those in Mearce Coppice have a very unsatisfactory service, the water having to be carried by hand from three hundred to four hundred yards from a stand pillar in the main road. Of the sixteen families in that hamlet, five preferred to rely on the well waters adjacent. Three of these are of considerable depth, but analysis showed that only one of them was reasonably free from evidence of contamination. The owners have been under notice since 1911 to provide a suitable water-supply, but have objected on grounds of expense owing to the distance from the mains. It is hoped that the difficulty will shortly be solved by the use of the one well referred to, from which samples of water have been repeatedly taken for analysis, with results of a very satisfactory character.”

The Medical Officer of Health of Cheadle Rural District states that Cauldon and Waterhouses have now been provided with a public supply for which a loan was sanctioned by the Local Government Board, and that the question of supplying other parts of the district which have inadequate supplies is now under consideration.

The Medical Officer of Health of Gnosall Rural District again points out that Gnosall Heath is still without a proper water-supply.

The Medical Officer of Health of Mayfield Rural District writes :—“ The water-supply scheme for Mayfield has proved very satisfactory, 90 houses are being supplied with water. An additional length of main has been laid to supply new cottages at Middle Mayfield. Since the completion of the works the water has again been analysed and the analysis shows the water to be excellent for drinking and domestic purposes. The hardness is total  $8.79^{\circ}$  grains per gallon, temporary  $4.39^{\circ}$ , and permanent  $4.40^{\circ}$ .

“ The water-supply scheme for Waterhouses is now completed. An analysis of the water shows the same to be good in all respects ; regulations and scale of charges have been prepared, and the owners of the various properties, without a sufficient and satisfactory supply of water, have been called upon to lay on the water from the mains.”

The Medical Officer of Health of Seisdon Rural District writes regarding the village of Bobbington :—“ The water-supply in this parish is to a large extent doubtless polluted, as six samples analysed have all been polluted and certified as unfit for drinking purposes. As you are aware, this neighbourhood is, as well as a large portion of your southern area, soaked with sewage from several large sewage works.

“ To supply this parish with tap water, I understand, is your immediate intention.”

As regards the village of Pattingham, the same Medical Officer of Health says :—“ The needs of this parish have been for some time under your consideration, and I understand your Surveyor is preparing a scheme for supplying the village with water, which will probably be by distributing mains from a reservoir.”

The Medical Officer of Health of Stafford Rural District writes :—“ Negotiations are in progress with a view of this water (Stafford Borough) being supplied to the populous parts of the Colwich parish and the hamlet of Doxey.”

The Medical Officer of Health of Stone Rural District writes regarding the water-supply of the village of Eccleshall as follows :—“ No steps have been taken towards providing this village with a pure supply of water.

“ The Parish Council, I understand, consider that the cleansing of the wells is all that is necessary to render the water fit for domestic use ; this may be worth a trial, but can, I think, be of only temporary benefit, as the soil is still being polluted by leakage from cesspools, privies, etc.

“ The fact that Eccleshall has so far escaped an epidemic of water-borne disease is no argument in favour of their still drinking polluted water.

“ In my opinion, this matter requires your most serious consideration.”

In the same report the following statement appears regarding the water-supply of Acton and Butterson :—“ No improvement has yet been carried out, but I understand that you are endeavouring to obtain the co-operation of the land-owners in carrying out a scheme.”



The Medical Officer of Health of Uttoxeter Rural District writes :—“ The remarks made in previous reports may still be held to apply. Generally the year was a favourable one, and little trouble arose from either shortage or impurity of the supplies. Improvements have been made in the supplies to several farms, and others are receiving attention. The sources of supply are being closely investigated at all cottage property as the inspections under the Housing Acts are made, and several samples of water have been handed over to your Medical Officer for examination.

“ At Lower Leigh the question of protecting the public supply has received the further attention of the Parish Council, to whom the matter was referred, and it is understood that they have the matter in hand with a view to carrying out the necessary work early in the new year.

“ The fountain at Draycott-in-the-Clay still supplies the 28 cottages in that part of the village, but the supply is really inadequate, and it is desirable that some steps should be taken to increase the quantity available, either by impounding the night's flow or by means of a larger main. The Council have not a free hand in the matter, but the difficulties in the way should not be insuperable.”

#### DAIRIES, COWSHEDS, AND MILKSHOPS.

The work under the Dairies, Cowsheds, and Milkshops Order receives attention in most of the reports, but not, I think, that attention which the importance of the subject demands. Probably this arises from the fact that Medical Officers of Health are discouraged by the meagre results of their previous representations. At any rate, the fact remains that little advance has been made in this branch of public health work.

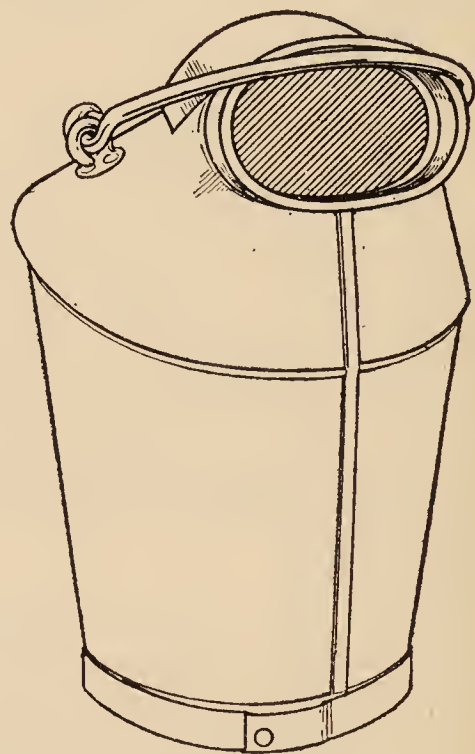
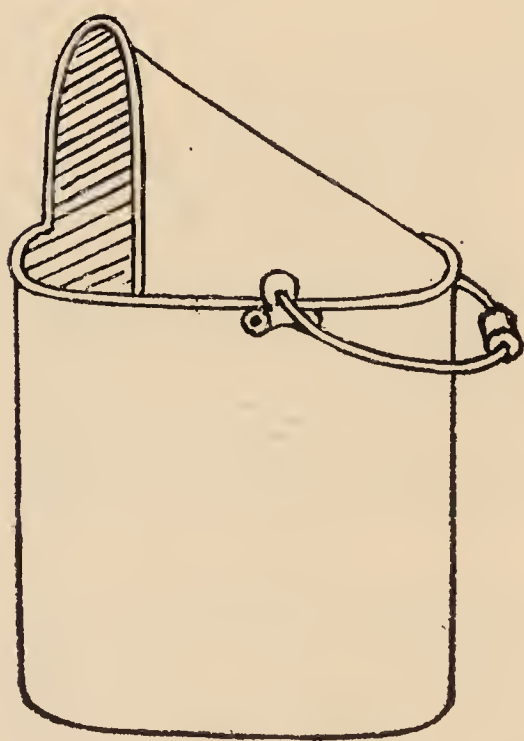
In view of the reports of the Royal Commission on Tuberculosis, the last of which was published three years ago, the question of the milk supply, the importance of which has long been recognised by health officers, has come still more prominently to the front, and some means must be found of effecting a radical change in the present methods of production and distribution of milk in this country. Apart

from the question of tuberculosis, it is an undoubted fact that milk, which should be the cleanest article of food consumed, is at present probably the dirtiest. There is no reason why this should be the case, but reform means increased cost of production, and if the public are to be supplied with a wholesome clean article they must be prepared to pay a higher price for it.

There is no need for incurring a large expenditure upon existing cowsheds in order to vastly improve their condition ; but in the first place it is essential that milk-producers should be induced to believe that there is no truth in the old tradition that cows should be kept in close stuffy sheds in order that they may yield a liberal supply of milk.

It is to be hoped that the long-delayed Milk Bill will soon become an Act of Parliament.

I reproduce drawings of two types of milking pails now used extensively in America, in the hope that they may be adopted by dairy farmers in this county. It has been shown that the substitution of this new type of pail for the ordinary pail in general use in this country has been instrumental in reducing the amount of dirt in milk by 95 per cent.



The Medical Officer of Health of Audley writes :—“ I have paid 24 visits during the year to the registered dairies in the district, and the Sanitary Inspector has visited all of them regularly during the year.

“ At one farm the cowsheds have been reconstructed so as to give proper air space, light, and ventilation.

“ At nine farms the cowsheds have had additional light and ventilation put in, and new drains provided.”

The Medical Officer of Health of Biddulph writes :—“ I have given broad hints in previous reports that I have not been satisfied with the amount of work done in this matter for the last few years. No blame attaches to the Inspector ; he simply cannot find time for it, owing to pressure of other duties. This is the more unfortunate, as it is the only means of ascertaining the quality of the milk and the cleanliness (or otherwise) of its production. We receive no help from analyses made elsewhere, as none of the milk goes out of the district. Time was when Mr. Gibson and I jointly visited all the cowsheds in each year ; but this has not been done lately.”

The Medical Officer of Health of Brownhills writes :—“ The structural arrangement of many of the cowsheds is bad and extensive alterations will have to be made before these come up to standard. This is especially so as regards light and ventilation. The Sanitary Inspector and myself intend making a regular and systematic inspection of the cowsheds of the district during the year with a view to having the regulations enforced.”

The Medical Officer of Health of Cannock Urban District writes :—“ Much of the milk supply of the district is brought by train from neighbouring districts. It is impossible to state how many cowsheds and milkshops there are as the register is out of date, in fact, I am told this work has had to be entirely neglected, owing to the congestion in the Sanitary department.

“ Some of the purveyors of milk are said to have never been registered.

“ I have inspected 16 cowsheds and find that their condition is very bad, flagrant contraventions of the regulations being the rule.

“ A commencement is being made to have these matters put right, but it will take much time to make them reasonably satisfactory. Your Council have given instructions for prosecution in some instances.”



The Medical Officer of Health of Kidsgrove writes with reference to the Dairies, Cowsheds, and Milkshops Order :—  
“ Under this Order improvements in the structure, of cowsheds especially, continue to be made throughout the district, and special efforts have been made to improve the lighting and ventilation and to secure a larger cubic capacity for the cattle. The paving and drainage of the shippens is generally satisfactory. In connection with the repairs and improvements to the cowsheds which have been carried out during the year, two of the largest cowsheds have now been utilised for other purposes ; one cowshed has been rebuilt in accordance with the requirements of the regulations under the Dairies, Cowsheds, and Milkshops Order, and five others have been entirely re-constructed in the interior.”

The Medical Officer of Health of the City of Lichfield writes :—“ By order of your Council the sanitary officers have power to take and send for special analysis samples of milk at any time, and also to call in a veterinary surgeon in the case of any suspected disease in the cows.”

The Medical Officer of Health of Quarry Bank gives the number of dairies and cowsheds in the district and the approximate number of cows, and writes :—“ All the above have been regularly visited by the Sanitary Inspector and myself. The dairies are uniformly clean and cool, fairly well ventilated, and on the whole reserved strictly for the purpose intended. The cowsheds are still much below the standard one could desire. Some are wooden sheds with badly-laid floors, but more efforts are being made towards keeping them clean. The cows appear healthy, and are said to be practically always in the open except during milking operations. Two cowkeepers have discovered that grooming cattle is not attended by serious results, but some seem to regard dung pollution as a valuable auxiliary to warmth. The time has come when a certificate should be required as to the cleanliness of milk intended for consumption, which should only be granted when conditions not only of the dairy and milk vessels, but also of the cow, cowshed, and persons associated with its production and distribution are satisfactory to a supervising authority. This should entail the removal of

obsolete sanitary conveniences, whereas I found that fully 75 per cent. of the dairies had privy middens adjacent. Three cows were suspected of tubercle, one being condemned after examination by the County Veterinary Surgeon, and the others slaughtered and destroyed voluntarily. Some milk is imported from outside dairies. Occasional complaints have been made about the bottled milk so introduced.”

The Medical Officer of Health of Sedgley writes:—“ During the year two cases of selling food unfit for human use were discovered. In the one case the butcher surrendered the carcase of a cow which was found to be tuberculous, and in the other a portion of angiomatous liver was exposed for sale. Full particulars of both cases are appended in your Inspector’s report.

“ The cowsheds in this district leave much to be desired. In the autumn I made an inspection of all the cowsheds in your area, they are mostly old fashioned, badly lighted, ill ventilated, and inadequately drained. A full description of them will be found in the Inspector’s report. As you are aware, I pointed out to you that the existing bye-laws were of no use, as they were much too indefinite, and suggested that new bye-laws should be framed.

“ With every wish to improve the condition of cowsheds, we find our hands are tied, as we have no power to compel; the words ‘ sufficient light,’ ‘ sufficient ventilation,’ etc., may be taken to mean anything, and even the minimum scale suggested by the Local Government Board cannot be enforced. Until we are given orders instead of suggestions, all we can do is to persuade landlords to make alterations. I am glad to report that as a result of our urgency many of the owners have promised to improve the condition of their sheds.”

The Medical Officer of Health of Uttoxeter Rural District writes:—“ The improvement in the condition of cowsheds has continued, and a number of defective buildings have been rebuilt or otherwise repaired. There is a marked improvement in the condition of sheds as regards cleanliness and ventilation, and the numerous instances in which owners have voluntarily undertaken to re-lay floors and provide extra windows and ventilators may be taken as a sign that people



are now appreciating the advantages of having their sheds as airy and sweet as possible. The difficulty of obtaining a plentiful supply of good water for drinking and cleansing purposes is still one of the most serious obstacles to real advance—though an improvement can be seen in this detail, many of the larger farms having been provided with more copious supplies during the year, and it is understood that in other cases the matter is receiving the consideration of owners.

“ It has been pleasing to note a reduction in the number of wooden buildings during the year, but there has been at least four instances in which new sheds have been erected without formal approval of plans.

“ Dairies on the whole are well kept, but in some instances there is an unfortunate tendency to use the dairy for other purposes. This practice is not of necessity bad, but should be discouraged.”

#### SLAUGHTER-HOUSES.

Beyond mentioning the fact that slaughter-houses are regularly inspected, the reports do not contain any very striking comments calling for notice in this report.

It would appear from the report of the Medical Officer of Health of Cheadle Rural District that his Council, as the outcome of difficulties in dealing properly with slaughter-houses, have acquired urban powers for the town of Cheadle in order that bye-laws governing the structure of premises and the conduct of the business may be established.

#### BAKEHOUSES.

Most of the urban reports mention the fact that the bakehouses are regularly inspected, but few contain any observations under this heading which call for special notice.

As regards underground bakehouses, there appear to be very few in any of the districts of the Administrative County.

#### LODGING-HOUSES.

The remarks under this heading in the reports do not call for special notice.



## FACTORIES AND WORKSHOPS.

Under this heading very little matter appears which calls for special mention.

## OFFENSIVE TRADES.

This question does not receive very prominent notice in the reports under review.

## BYE-LAWS AND ADOPTIVE ACTS.

In some districts the Bye-laws in force are out of date, and in others no Bye-laws have been adopted. It is most desirable that Bye-laws in accordance with modern ideas should be in force in all districts.

As regards adoptive Acts, I have already given considerable space to the comments of Medical Officers of Health regarding the Notification of Births Act in dealing with the question of infant mortality ; and as regards the Public Health Acts Amendment Act, 1907, it has similarly been referred to under the heading Excrement and Refuse Disposal.

I specially reported on this question three years ago, and as the outcome of that report, which was sent to the various district councils interested, the question of improved bye-laws, and the adoption of optional Acts has received considerable attention.

As regards Bilston, new Bye-laws have been framed and now await the approval of the Local Government Board.

The Medical Officer of Health of Brownhills states that new Bye-laws will shortly be in force, and he again urges his authority to adopt the Notification of Births Act.

The Medical Officer of Health of Cannock Urban District writes :—“ The adoption of the Infectious Disease Prevention Act, the Public Health Acts Amendment Act, 1907, and of revised Bye-laws and Regulations, which I understand your Council have decided upon, is a wise measure.

“ Greater powers over van dwellings and many other matters will be at your disposal. Rag and bone businesses should be declared an offensive trade.”

The Medical Officer of Health of Heath Town again urges his authority to adopt the Notification of Births Act.

The Medical Officer of Health of Cannock Rural District writes :—“ The Bye-laws Committee considered the action to be taken as to revision of present Bye-laws as to new streets and buildings, and the provision of similar Bye-laws for the parishes in the rural district where no such bye-laws are at present in force, and decided that the Clerk and Surveyor do draft Bye-laws for the parishes of Bushbury, Cheslyn Hay, Essington, Huntington, and Great Wyrley, have same printed, and submit a copy of the draft to each member.”

The Medical Officer of Health of Stoke-on-Trent Rural District, as stated in the sections devoted to infantile mortality, urges his authority to adopt the Notification of Births Act.

The Medical Officer of Health of Tamworth Rural District writes :—“ With reference to the question of the adoption of a series of Bye-laws for the district, at the suggestion of the Local Government Board a Conference took place at Whitehall, on February 10th, 1913, at which Mr. Ashwood, Mr. Alldritt, your Clerk, Surveyor, and myself attended. As the result of considerable discussion it appeared that the intermediate series of the Board's model Bye-laws for new streets and buildings was the most adaptable to the requirements of the district, subject to some slight modifications.

“ Further correspondence has taken place between your Council and the Board with reference to the retention of clause 5 and clause 13, to the first of which your Council objected, and with a view to arriving at a better understanding with regard to the efficacy of these clauses, a further conference took place at Tamworth on December 4th, 1913, at which Mr. Kitchin, the Board's Architect, and Dr. Carnworth, Medical Inspector, attended, and subsequently made an inspection of the district.

“ The adoption of the intermediate series with such modifications as may be determined upon, seems to offer facilities for bringing this question to a successful termination.”

GEO. REID,

County Medical Officer of Health.

*Stafford,*

*September, 1914.*

GENERAL MORTALITY TABLES.

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TABLES SHEWING THE RESULT OF WORKING  
OF THE NOTIFICATION ACT.



NOTE.—In the following tables the individual zymotic mortality is given in order to indicate readily the class of disease that has mostly contributed to the gross rate. Apart from this, no accurate deductions can be drawn from such figures for one year only.

Table showing Population, Number of Persons per Acre, Birth and Death-rates, as well as the Death-rates at all ages and among Children under 1 year, and the Death-rates from Zymotic Diseases, Phthisis, Diseases of the Respiratory Organs, &c.

URBAN.

DISTRICT.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Standardizing Factor.	Standardized Death Rate.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation including Premature Birth.
	Census, 1911.	Estimated to middle of 1913.								Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Amblecote ..	3155	3161	4.7	25.6	12.0	0.9881	11.8	37	0.31	..	..	..	0.31	..	0.94	..	0.94	0.31	0.94	0.31	1.26	..	0.31	..	0.63	
Audley .....	14776	15038	1.8	29.9	13.8	1.0133	13.9	84	0.93	..	0.26	0.53	..	0.26	0.53	0.86	0.86	1.66	0.86	0.53	0.19	..	..	0.33	0.79	
Biddulph ....	7422	7703	1.3	27.7	13.5	0.9855	13.3	135	1.81	..	0.25	0.77	..	0.38	0.38	..	1.03	0.64	1.03	0.90	..	..	..	..	2.20	
Bilston .....	25681	26076	13.9	33.9	19.4	0.9888	19.1	154	3.25	..	1.45	0.07	0.03	1.64	0.03	0.49	0.88	2.79	0.26	2.02	0.15	0.11	0.03	0.30	1.53	
Brierley Hill..	12263	12316	12.1	28.8	16.7	0.9898	16.5	123	2.35	..	0.56	0.16	..	1.13	0.32	0.16	0.89	0.97	1.46	0.73	..	0.24	0.16	0.56	1.13	
Brownhills ..	16852	17235	2.7	36.9	10.2	1.0174	10.3	78	1.33	..	0.46	..	..	0.69	0.17	0.29	0.17	1.27	0.63	0.75	..	0.05	..	0.29	1.50	
Cannock .....	28586	29691	3.7	33.0	14.0	0.9913	13.8	129	1.21	..	0.13	0.10	..	0.77	0.74	0.43	0.74	1.01	0.74	1.54	0.40	0.10	..	0.10	1.71	
Coseley .....	22834	22981	6.1	32.2	16.0	0.9886	15.8	120	1.87	..	0.78	0.08	0.04	0.82	0.08	0.26	0.74	1.30	1.00	1.34	0.04	0.26	0.04	0.39	1.65	
Darlaston ....	17107	17517	19.1	32.8	18.8	1.0202	19.1	144	3.08	..	1.08	0.05	..	1.77	0.05	1.19	1.19	1.14	1.02	3.19	0.17	0.17	..	0.11	1.65	
Heath Town..	12276	12955	14.6	29.4	15.2	1.0082	15.3	123	3.62	..	1.85	0.23	0.07	1.23	0.07	0.23	0.92	1.00	0.92	1.69	..	0.07	0.07	0.30	0.84	
Kidsgrove .....	9012	9178	2.9	31.8	17.2	0.9970	17.1	119	1.08	..	..	0.54	0.10	0.32	0.10	0.65	0.76	2.83	0.43	0.76	0.76	..	..	0.65	..	

Deaths occurring during the year 1913, classified according to Diseases, Ages, and Localities, together with Births occurring during the year.

URBAN.

DISTRICT.	Deaths from all causes.	Deaths from all causes at subjoined ages.								Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phthisis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhilitis.	(Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents & Diseases of Pregnancy & Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicides.	Other Defined Diseases.	Diseases ill-defined or unknown	
		Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.																															
		Births.	Deaths from all causes.	3	..	..	..	5	4																															5
Amblecote ..	81	38	3	..	..	..	5	4	5	21	1	..	..	..	..	..	..	3	..	..	..	3	..	1	2	1	4	8	3	..	3	4	1	..	..	2	2	..	20	..
Audley .....	450	208	38	12	10	13	12	19	42	62	..	..	1	1	8	1	3	8	2	11	13	..	..	4	20	25	8	3	4	1	..	5	1	2	12	4	..	69	..	
Biddulph ....	214	104	29	7	5	1	7	5	18	32	..	..	2	6	3	1	..	8	..	..	8	2	..	1	8	5	7	..	3	..	1	..	1	17	4	..	27	..		
Bilston .....	886	508	137	48	43	19	20	41	99	101	1	..	38	2	1	6	..	23	6	7	7	..	..	..	13	73	53	4	43	4	3	1	8	..	2	40	13	7	150	3
Brierley Hill..	355	206	44	10	14	10	16	18	42	52	..	..	7	2	4	1	..	11	1	1	18	1	..	..	21	12	9	..	14	3	3	2	7	..	..	14	11	4	46	12
Brownhills ..	637	177	50	12	12	9	9	12	30	43	..	..	8	..	3	1	..	3	4	1	11	1	3	13	22	13	..	12	1	1	..	5	..	..	26	8	1	35	5	
Cannock ....	980	417	127	24	18	14	18	41	69	106	..	..	4	4	3	3	2	22	3	10	22	1	3	35	30	46	12	23	3	3	..	3	..	6	51	11	4	75	36	
Coseley .....	741	368	89	26	21	18	13	39	66	96	1	..	18	..	2	4	..	17	3	3	23	2	5	24	30	31	1	19	2	6	1	9	1	..	38	14	5	106	..	
Darlaston ....	576	330	83	39	31	9	12	38	54	64	..	..	19	1	1	3	..	21	2	19	18	2	3	23	20	56	3	31	1	3	..	2	..	3	29	5	3	60	..	
Heath Town..	381	197	47	26	12	13	7	22	36	34	1	..	24	2	3	1	1	12	1	2	12	..	..	20	13	22	..	16	..	1	1	4	1	1	11	4	1	41	2	
Kidsgrove....	292	158	35	13	8	9	5	22	32	34	1	..	..	5	1	1	..	7	3	3	4	2	3	8	26	7	..	3	1	1	..	6	..	1	..	10	..	66	..	

URBAN—continued.

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DISTRICT.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Standardizing Factor.	Standardized Death Rate.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation including Premature Birth.
	Census, 1911.	Estimated to middle of 1913.								Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Leek .....	16663	16945	11·6	19·2	16·1	1·0028	16·1	159	0·82	·	0·18	·	0·18	0·05	·	0·41	1·29	0·11	1·65	1·06	1·12	0·18	0·11	·	0·47	1·29
Lichfield .....	8616	8787	2·5	21·1	15·3	0·8873	13·5	96	1·25	·	·	·	0·79	0·11	·	0·34	1·70	·	1·47	0·56	0·22	·	·	·	0·68	0·79
Newcastle .....	20201	20270	30·2	27·6	15·2	0·9887	15·0	114	1·33	·	·	·	0·09	0·19	0·09	0·93	1·03	0·54	1·08	1·33	1·67	0·14	0·14	0·04	0·54	1·33
Perry Barr .....	2403	2416	0·5	25·2	7·8	1·0642	8·3	49	0·82	·	0·41	·	0·41	·	·	·	0·41	·	0·82	·	0·82	·	·	·	0·41	0·41
Quarry Bank ..	7393	7508	11·2	30·3	15·8	0·9991	15·7	105	1·86	·	0·53	·	0·53	0·13	·	0·66	0·39	0·26	1·06	2·66	1·06	·	0·13	·	0·26	1·06
Rowley Regis.	37000	37558	9·8	31·4	14·2	1·0209	14·5	116	1·94	·	1·19	0·13	0·10	·	0·02	0·48	0·85	0·53	0·82	1·30	1·09	0·10	·	0·02	0·55	1·70
Rugeley .....	4504	4518	6·9	25·0	13·5	0·9134	12·3	88	1·32	·	·	·	0·44	·	·	0·88	0·66	0·22	0·66	0·66	0·88	0·22	0·22	·	0·44	0·44
Sedgley .....	16527	16665	4·3	28·3	13·9	0·9906	13·7	127	1·44	·	·	0·06	0·78	·	0·18	0·42	1·08	0·24	0·72	0·90	0·66	0·06	0·06	·	0·30	1·50
Short Heath ..	4075	4205	3·9	33·7	14·7	0·9523	13·9	140	1·66	·	0·47	·	0·23	·	·	0·95	0·71	0·71	0·95	2·14	0·95	·	·	·	·	0·95
Smallthorne ..	13559	14178	5·2	33·7	15·8	1·0308	16·2	146	1·83	·	0·28	·	0·77	0·07	·	0·70	0·84	0·28	0·70	2·39	2·18	0·07	·	·	0·56	1·62
Stafford .....	*21856	*22676	21·7	25·5	13·2	1·0278	13·5	127	0·57	·	0·04	·	·	·	·	0·52	1·19	0·17	0·83	1·41	0·88	0·08	0·13	0·08	0·26	1·10
Stone .....	5688	5690	5·3	22·4	14·7	0·8798	12·9	109	0·17	·	·	·	0·17	·	·	·	1·58	0·17	1·58	0·70	·	0·35	0·17	·	0·70	1·93
Tamworth .....	7738	7850	27·6	23·0	15·4	0·9564	14·7	88	1·27	·	0·12	0·12	·	0·38	·	0·63	1·14	0·25	1·52	1·01	1·27	0·12	·	0·12	0·25	0·63
Tettenhall .....	5381	5391	3·5	22·4	11·6	0·9002	10·4	90	0·74	·	0·37	·	·	·	·	0·37	0·37	0·18	1·11	0·74	0·37	·	0·18	·	0·74	1·11

\* Excluding persons in Public Institutions not belonging to the Borough.



DISTRICT.	Deaths from all causes at subjoined ages.								Deaths from all causes.	Births.	Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phthisis (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhoea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents & Diseases of Pregnancy & Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicides.	Other Defined Diseases.	Diseases ill-defined or unknown.	
	Deaths from all causes at subjoined ages.																																								
	Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.																																	
Leek .....	52	8	16	10	10	23	54	101	327	274	..	..	3	..	3	1	..	..	22	..	2	28	..	35	42	18	19	3	7	..	2	8	..	..	22	3	1	55	..		
Lichfield. ....	18	3	4	5	5	16	32	52	186	135	..	..	..	..	7	1	2	..	15	..	1	13	..	..	15	5	2	..	3	..	..	6	..	2	7	5	1	50	..		
Newcastle.....	64	16	15	10	18	37	63	86	560	309	2	2	..	..	2	4	6	..	21	6	5	22	..	2	27	27	34	3	19	5	3	1	11	..	2	27	9	2	69	..	
Perry Barr....	3	3	1	..	..	2	4	6	61	19	..	..	1	..	1	..	..	..	1	..	..	2	..	..	3	..	2	..	..	..	..	1	..	1	1	1	4	1	..	..	
Quarry Bank..	24	6	4	5	7	13	24	36	228	119	..	..	4	..	4	1	1	..	3	2	..	8	..	2	5	20	8	..	5	..	1	..	2	..	2	8	3	2	18	20	
Rowley Regis.	137	51	36	21	17	55	83	134	1180	534	1	1	45	5	4	..	4	..	32	9	11	31	2	..	25	49	41	4	18	1	..	1	21	..	6	64	25	5	130	..	
Rugeley .....	10	2	1	3	1	7	15	22	113	61	..	..	..	..	2	..	..	..	3	..	1	3	..	..	9	3	4	1	4	1	1	2	..	2	2	3	..	20	2		
Sedgley .....	60	18	5	7	11	26	46	60	472	233	3	3	..	1	13	..	7	..	18	2	2	12	..	..	..	15	11	1	1	7	..	1	5	..	2	25	7	1	100	..	
Short Heath..	20	4	5	2	..	7	10	14	142	62	..	..	2	..	1	..	..	..	3	1	2	4	..	1	6	9	4	..	4	..	..	..	..	..	1	4	4	..	16	..	
Smallthorne..	70	16	14	5	8	21	44	46	478	224	..	..	4	..	11	1	..	2	12	2	2	10	..	..	3	14	34	31	1	10	..	..	8	..	1	23	11	1	36	7	
Stafford ..	74	7	3	2	11	36	65	102	580	300	..	..	1	..	..	..	5	..	27	1	3	19	2	..	3	29	32	20	2	12	1	3	2	6	..	1	25	5	6	96	1
Stone .....	14	3	..	3	5	8	23	28	128	84	..	..	..	..	1	..	2	1	9	1	..	9	..	..	1	11	4	..	2	..	1	1	4	..	1	11	..	1	11	13	
Tamworth.....	16	3	1	7	5	17	24	48	181	121	..	..	1	1	..	3	..	..	9	1	1	12	..	..	3	10	8	10	1	5	1	1	2	..	5	7	5	35	..		
Tettenhall....	11	2	2	2	3	3	12	28	121	63	..	..	2	..	..	..	1	..	2	..	1	6	..	..	11	4	2	2	2	1	1	1	4	..	6	1	..	15	4		

URBAN—continued.

DISTRICT.	Population at all ages.		Number of persons per acre.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Standardizing Factor.	Standardized Death Rate.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation including Premature Birth.
	Census, 1911.	Estimated to middle of 1913.								Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.										
Tipton .....	31756	32047	14·7	37·5	17·0	0·9735	16·5	134	2·87	..	1·06	0·12	0·24	0·03	0·03	1·37	0·65	0·21	0·43	1·43	1·68	..	0·09	0·06	0·15	1·80
Uttoxeter .....	5717	5857	5·6	26·8	13·4	0·9543	12·7	95	1·19	..	0·51	..	0·34	..	..	0·34	0·34	0·17	0·85	0·85	1·02	0·17	..	..	0·17	1·19
Wednesbury ..	28103	28474	12·4	30·4	18·2	1·0071	18·3	152	4·10	..	2·52	0·07	0·21	0·14	0·07	1·08	1·15	0·63	1·08	1·43	1·29	0·21	0·17	..	0·49	1·54
Wednesfield ..	6488	6873	2·7	27·3	15·4	0·9747	15·0	191	2·61	..	0·87	0·29	0·29	0·14	0·14	0·87	1·01	..	0·43	1·16	1·45	..	..	..	0·14	1·60
Willenhall .....	18844	18923	14·8	32·0	19·6	1·0304	20·1	166	3·32	..	1·63	0·26	..	..	..	1·42	1·00	0·52	0·63	2·21	1·58	0·15	0·05	0·05	0·63	2·16
Wolstanton ..	27335	28459	5·2	28·1	14·2	1·0365	14·7	147	1·37	..	0·03	..	0·24	0·35	0·07	0·66	0·80	0·38	0·87	1·44	0·87	0·24	0·03	0·03	0·28	1·72
Totals and Averages. }	453811	469141	5·7	30·2	15·5	1·0001	15·5	128	1·96	..	0·70	0·07	0·21	0·11	0·03	0·83	0·88	0·39	0·86	1·42	1·29	0·12	0·09	0·03	0·36	1·44
96 large towns in England, average population.	..	185966	†	25·1	14·3	..	14·7	117	†	0·00	0·34	0·07	0·17	0·13	0·04	29·33†	†	†	†	†	†	†	†	†	†	†

† Under two years; rate calculated to 1000 births (Corresponding Urban rate in Administrative County 22·6.)

† Not given in Registrar General's returns.

District.	Births.	Deaths from all causes.	Deaths from all causes at subjoined ages.								Enteric Fever.	Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Influenza.	Erysipelas.	Phtisits (Pulmonary Tuberculosis).	Tuberculous Meningitis.	Other Tuberculous Diseases.	Cancer, Malignant Disease.	Rheumatic Fever.	Meningitis.	Organic Heart Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Diarrhea and Enteritis.	Appendicitis and Typhlitis.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Puerperal Fever.	Other Accidents & Diseases of Pregnancy & Parturition.	Congenital Debility and Malformation, including Premature Birth.	Violent Deaths, excluding Suicide.	Suicides.	Other Defined Diseases.	Diseases ill-defined or unknown.
			Under 1 year.	1 and under 2 years.	2 and under 5 years.	5 and under 15 years.	15 and under 25 years.	25 and under 45 years.	45 and under 65 years.	65 and upwards.																														
Tipton.....	1204	547	162	52	47	29	32	54	78	102	1	..	34	4	8	1	5	1	21	2	5	14	..	5	4	46	54	..	44	2	3	2	5	..	2	58	18	1	199	8
Uttoxeter....	157	79	15	5	4	1	..	6	15	33	..	3	..	2	2	..	..	..	2	1	..	5	1	6	5	5	6	1	2	..	..	..	1	7	7	..	1	20	11	
Wednesbury..	868	521	132	71	43	26	6	42	101	100	2	..	72	2	6	4	2	1	33	4	14	31	3	3	29	41	37	6	31	4	5	..	14	44	12	1	119	..		
Wednesfield..	188	106	36	10	6	7	3	10	19	15	1	..	6	2	2	1	..	..	7	..	..	3	2	9	8	10	..	6	..	..	..	1	11	11	9	2	19	2		
Willenhall....	607	371	101	36	34	23	7	33	72	65	..	..	31	5	..	..	1	1	19	5	5	12	1	29	42	30	3	27	1	1	1	12	41	9	3	68	17			
Wolstanton } United .. }	800	405	118	18	22	21	12	46	75	93	2	..	1	..	7	10	2	..	23	4	7	25	..	9	34	41	25	7	19	3	1	1	8	49	10	4	61	50		
Totals.....	34174	7278	1819	551	437	295	285	723	1352	1816	17	..	330	32	98	54	58	11	417	66	119	408	23	104	505	668	606	58	393	37	44	14	171	680	226	63	1836	194		



RURAL.

DISTRICT.	Population at all ages.		Mean area per person in acres.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Standardizing Factor.	Standardized Death Rate.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation, including Premature Birth.		
	Census 1911.	Estimated to middle of 1913.								Smallpox.	Measles.	Scarlet Fever.	Whooping Cough.	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.												
Blore Heath...	2287	2322	5·8	19·3	8·6	0·8432	7·2	Nil	Nil	..	..	..	..	..	..	0·43	..	0·43	0·43	0·43	..	..	0·86	..	..	1·72	..	0·44
Cannock.....	19786	20247	2·5	23·0	12·0	0·9419	11·3	87	0·98	..	..	..	..	0·24	0·34	0·05	1·08	1·13	1·08	1·13	0·88	0·09	0·14	..	..	0·14	0·44	
Cheadle.....	26706	27197	1·9	23·2	12·3	0·9539	11·7	118	0·73	..	..	..	0·03	0·25	0·58	0·33	0·88	1·21	0·88	1·21	0·62	..	0·03	0·07	0·07	0·07	1·02	
Gnosall.....	4765	4781	6·0	19·6	12·5	0·8188	10·2	31	0·20	..	..	..	..	0·20	0·62	..	1·25	0·62	1·25	0·62	0·62	..	..	..	..	0·41	0·41	
Kingswinford.	20803	21107	0·2	28·6	14·6	0·9253	13·5	119	1·94	..	..	0·19	0·09	0·14	0·71	0·23	0·90	1·28	0·90	1·28	1·51	..	0·23	..	..	0·33	1·23	
Leek.....	15487	15746	4·4	24·3	13·9	0·9313	12·9	99	1·97	..	..	..	0·19	0·25	0·63	0·31	0·63	0·82	0·63	0·82	1·07	0·06	..	..	0·38	0·82		
Lichfield.....	*27718	*28215	2·4	25·1	10·7	0·9706	10·3	87	0·74	..	0·07	0·03	0·10	0·10	0·56	0·31	0·92	0·70	0·92	0·70	0·53	0·10	0·10	0·03	0·46	1·09		
Mayfield.....	3915	3882	6·3	23·1	14·9	0·8569	12·7	100	0·25	..	..	..	0·25	..	1·80	..	0·25	0·77	0·25	0·77	0·77	..	0·25	..	0·25	0·25		
Newcastle....	6410	6385	3·1	25·1	14·2	0·9426	13·3	91	1·87	..	0·62	..	0·15	0·47	0·47	0·15	1·56	1·09	1·56	1·09	1·09	..	..	..	..	0·62		
Seisdon .....	15074	15596	2·7	21·0	10·5	0·8773	9·2	48	0·32	..	0·12	..	..	0·06	0·44	0·44	1·08	0·57	1·08	0·57	0·70	0·12	0·32	0·06	0·38	0·70		
Stafford.....	11777	12105	4·6	22·2	10·5	0·9194	9·6	66	0·33	..	0·08	..	..	0·24	0·74	0·08	1·07	0·49	1·07	0·49	0·24	..	0·03	..	0·24	0·49		

\* Excluding 1,000 Inmates of Burntwood Asylum

**RURAL—continued.**

DISTRICT.	Deaths from all causes.	Deaths from all causes at subjoined ages.								Births.	Deaths from all causes.	Deaths from all causes.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																									
		Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upwards.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Blore Heath...	45	20	1	..	..	1	3	2	13	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..

**RURAL—continued.**

DISTRICT.	Population at all ages.		Mean area per person in acres.	Birth-rate per 1000 of population.	General mortality per 1000 of population.	Standardizing Factor.	Standardized Death Rate.	Mortality in children under one year per 1000 registered births.	Zymotic mortality per 1000 of population.	Individual zymotic mortality per 1000 of population.							Phthisis.	Tuberculous Meningitis and other Tuberculous Diseases.	Cancer, Malignant Disease.	Bronchitis.	Pneumonia (all forms).	Other Diseases of Respiratory Organs.	Cirrhosis of Liver.	Alcoholism.	Nephritis and Bright's Disease.	Congenital Debility and Malformation, including Premature Birth.	
	Census 1911.	Estimated to middle of 1913.								Smallpox.	Measles.	Scarlet Fever.	Whooping Cough	Diphtheria and Croup.	Enteric Fever.	Diarrhoea and Enteritis.											
Stoke-on-Trent }	4774	4893	0·6	31·2	11·4	0·9773	11·1	124	1·43	..	0·81	..	0·20	0·20	0·20	..	0·81	0·40	0·40	0·40	0·61	1·63	0·20	0·20	..	0·20	1·43
Stone .....	14387	14490	4·6	20·0	10·7	0·8990	9·6	58	0·34	..	..	0·07	..	0·13	..	0·13	0·55	0·07	0·69	0·55	0·55	0·48	0·41	0·13	..	0·34	0·75
Tamworth... } Staffs. portion }	5113	5198	4·1	23·7	8·0	0·8927	7·1	24	0·77	..	..	..	0·38	0·19	..	0·19	0·19	0·19	1·15	0·77	0·57	..	..	..	0·19	0·38	
Tutbury .....	9087	9075	2·8	21·1	11·7	0·9221	10·7	62	0·99	..	..	..	0·88	..	..	0·11	..	0·33	0·88	0·65	1·11	..	0·33	..	0·44	0·33	
Uttoxeter .....	8152	8158	5·8	19·3	11·5	0·9186	10·5	88	0·36	..	0·24	..	0·12	..	..	..	0·49	0·12	1·34	0·98	0·49	0·12	0·12	0·12	..	0·49	
Walsall .....	10991	11159	1·0	31·4	12·5	0·9746	12·2	105	0·71	..	0·18	..	..	0·09	..	0·44	0·53	0·18	0·89	1·16	1·61	0·09	..	..	0·44	1·07	
Totals and Averages }	207232	210546	2·9	23·7	12·0	0·9262	11·1	89	0·84		0·20	0·03	0·15	0·11	0·01	0·31	0·55	0·21	0·93	0·88	0·83	0·08	0·13	0·02	0·29	0·76	



**RURAL—continued.**

DISTRICT	Births.	Deaths from all causes at subjoined ages.								Deaths from all causes.
		Under 1 year.	1 & under 2 years.	2 & under 5 years.	5 & under 15 years.	15 & under 25 years.	25 & under 45 years.	45 & under 65 years.	65 and upwards.	
Stoke-on-Trent }	153	19	3	3	4	3	7	9	8	56
Stone .....	291	17	2	4	6	7	13	38	69	156
Tamworth }	123	3	4	3	2	2	3	9	16	42
Staffs. portion }	192	12	4	2	7	2	13	18	49	107
Tutbury .....	158	14	2	1	4	..	7	20	46	94
Uttoxeter .....	351	37	7	1	11	5	18	15	46	140
Walsall .....										
Totals .....	5019	448	108	96	104	88	250	462	972	2528

INFANTILE MORTALITY DURING THE YEAR 1913.

Nett Deaths from stated Causes at various ages under One Year of Age.

URBAN.

CAUSE OF DEATH.	URBAN.									Total. Deaths under One Year.
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mths.	
Small-pox ...	..	..	..	..	..	..	..	..	..	..
Chicken-pox ...	..	..	..	..	..	..	..	..	..	..
Measles ...	..	1	..	..	1	2	4	16	41	64
Scarlet Fever ...	..	..	..	..	..	..	..	1	2	3
Whooping Cough ..	1	..	2	..	3	13	7	7	12	42
Diphtheria and Croup ...	1	..	..	..	1	1	1	..	..	3
Erysipelas ..	..	..	..	..	..	..	..	..	..	2
Tuberculous Meningitis ..	..	..	..	..	..	..	4	6	5	15
Abdominal Tuberculosis ..	..	..	1	2	3	3	9	8	4	27
Other Tuberculous Diseases	..	..	..	1	1	1	6	5	2	15
Meningitis ( <i>not Tuberculous</i> )	1	2	..	..	3	7	11	7	5	33
Convulsions ..	16	5	16	..	37	21	23	15	9	105
Laryngitis ..	..	..	1	..	1	..	2	..	..	3
Bronchitis ..	7	8	6	13	34	51	33	40	34	192

URBAN—continued.

CAUSE OF DEATH.	Under 1 Week.										Total under 4 Weeks.										Total Deaths under One Year.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																				
	1-2 Weeks.		2-3 Weeks.		3-4 Weeks.		4 Weeks and under 3 Months		3 Months and under 6 Months		6 Months and under 9 Months		9 Months and under 12 Mns.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																												
Pneumonia (all forms)	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..



INFANTILE MORTALITY DURING THE YEAR 1913.  
Nett Deaths from stated Causes at various ages under One Year of Age.

RURAL.											
CAUSE OF DEATH.											
	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mns.	Total Deaths under One Year.	
Small-pox ..	..	..	..	..	..	..	..	..	..	..	
Chicken-pox ..	..	..	..	..	..	..	..	..	..	..	
Measles ..	..	..	..	..	..	..	..	2	13	15	
Scarlet Fever ..	..	..	..	..	..	..	..	..	..	..	
Whooping Cough..	..	..	1	..	1	7	3	2	3	16	
Diphtheria and Croup ..	..	..	..	..	..	..	..	..	2	2	
Erysipelas ..	..	..	..	..	..	..	..	..	..	..	
Tuberculous Meningitis ..	..	..	..	..	..	..	..	1	1	2	
Abdominal Tuberculosis..	..	..	..	..	..	1	2	..	1	4	
Other Tuberculous Diseases ..	..	..	..	..	..	..	1	1	2	4	
Meningitis ( <i>not Tuberculous</i> ) ..	1	..	..	..	1	1	4	1	1	8	
Convulsions ..	7	4	3	3	17	7	4	10	2	40	
Laryngitis ..	..	..	..	..	..	..	..	1	..	1	
Bronchitis ..	..	..	1	3	4	4	11	6	3	28	

**RURAL--continued.**

CAUSE OF DEATH.	Under 1 Week.	1-2 Weeks.	2-3 Weeks.	3-4 Weeks.	Total under 4 Weeks.	4 Weeks and under 3 Months	3 Months and under 6 Months	6 Months and under 9 Months	9 Months and under 12 Mns.	Total Deaths under One Year.
Pneumonia (all forms)	..	2	..	1	3	14	14	17	8	56
{ Diarrhoea ..	..	..	..	..	..	5	3	3	2	13
{ Enteritis ..	..	..	..	1	1	6	9	1	3	20
Gastritis ..	..	..	..	..	..	..	4	..	..	4
Syphilis ..	..	..	..	..	..	..	1	..	..	1
Rickets ..	..	..	..	..	..	..	..	..	..	..
Suffocation (overlying)	..	1	..	..	1	4	2	..	..	7
Injury at Birth ..	..	6	..	..	8	..	..	..	..	8
Atelectasis ..	..	7	..	..	9	..	..	..	..	9
{ Congenital Malformations ..	..	3	..	..	5	1	..	1	2	9
{ Premature Birth ..	..	54	7	5	74	6	..	..	..	80
{ Atrophy, Debility and Marasmus ..	..	23	5	7	43	19	8	5	1	76
Other Causes ..	..	7	3	1	14	6	10	4	7	41
Totals ..	109	31	20	21	181	81	76	55	51	*444

\* Not including 4 deaths occurring outside two districts but belonging thereto.





**URBAN—continued.**

District, Population, Percentage of Cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Other Tuber- culous Dis- eases.	Acute Polyomyelitis.	Cerebro-spin Meningitis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
BILSTON.* 26,076. 80.0.	Cases .....	Under 5 ..... 5 & upwards	12 16	1 9	.. ..	.. 2	.. ..	.. ..	.. ..	.. ..	14 74	1 74	10 15	.. ..	.. ..	11		
	Deaths .....	Under 5 ..... 5 & upwards	2 ..	1 ..	.. ..	.. 1	.. ..	.. ..	.. ..	.. ..	.. ..	23	5 2	.. ..	.. ..	.. ..	32 6	
	Cases treated in hos- pital .....	Under 5 ..... 5 & upwards	26 ..	5 ..	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Cases .....	Under 5 ..... 5 & upwards	28 48	8 9	.. ..	.. ..	.. ..	.. ..	1 ..	.. ..	7 51	4 51	4 12	1 ..	.. ..	.. ..	.. ..	
BRIERLEY HILL.* 12,316. 74.1.	Deaths .....	Under 5 ..... 5 & upwards	1 ..	4 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	11	1 ..	.. ..	.. ..	.. ..	6 1	2
	Cases treated in hos- pital .....	Under 5 ..... 5 & upwards	63 ..	6 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Cases .....	Under 5 ..... 5 & upwards	1 20	9 33	.. ..	.. 1	.. ..	.. ..	1 ..	.. ..	12 16	1 19	1 ..	.. ..	.. ..	.. ..	.. ..	
	Deaths .....	Under 5 ..... 5 & upwards	.. ..	1 2	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	3	1 ..	.. ..	.. ..	.. ..	7 1	
BROWNHILLS.* 17,235. Nil.	Cases treated in hos- pital .....	Under 5 ..... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Cases .....	Under 5 ..... 5 & upwards	52 183	6 14	.. ..	.. 3	.. ..	.. ..	.. ..	.. ..	1 26	3 79	9 12	.. ..	.. ..	1 ..	.. ..	
	Deaths .....	Under 5 ..... 5 & upwards	4 ..	1 2	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 1	1 21	9 1	.. ..	.. ..	.. ..	4 2	
	Cases treated in hos- pital .....	Under 5 ..... 5 & upwards	1 ..	.. ..	.. ..	2 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
CANNOCK.* 29,691. 1.1.	Cases .....	Under 5 ..... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Deaths .....	Under 5 ..... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Cases treated in hos- pital .....	Under 5 ..... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Cases .....	Under 5 ..... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	



District, Population, Percentage of Cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phtisis.	Other Tuber- culous Dis- eases.	Acute Polyomyelitis.	Cerebro-spin <sup>1</sup> Meningitis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
LEEK.* 16,945. 91.3.	Cases ... ..	Under 5 .... 5 & upwards	5 46	1 6	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. 9	2 47	4 27	5 1	3 1	2		
	Deaths .....	Under 5 .... 5 & upwards	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 21	.. 2	.. ..	.. ..	.. ..	3 3	
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	49 }	4 }	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 1	1 1			
	Cases .....	Under 5 .... 5 & upwards	1 3	3 3	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	7 7	25 25	3 3	.. ..	1 1	5 5		
LICHFIELD.* 8,787. 60.0.	Deaths .....	Under 5 .... 5 & upwards	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	15 15	1 1	.. ..	.. ..	.. ..	.. ..	7 7
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	4 }	2 }	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
	Cases .....	Under 5 .... 5 & upwards	6 10	14 18	.. ..	6 6	.. ..	.. ..	.. ..	.. ..	1 7	3 66	1 7	.. 1	.. ..	5 5		
	Deaths .....	Under 5 .... 5 & upwards	.. ..	3 1	.. ..	2 2	.. ..	.. ..	.. ..	.. ..	.. ..	21 21	2 3	.. ..	.. ..	.. ..	.. ..	2 2
NEWCASTLE.* 20,270. 61.1.	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	11 }	19 }	.. ..	3 3	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
	Cases .....	Under 5 .... 5 & upwards	3 5	1 3	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	4 4	8 8	4 4	.. ..	.. ..	.. ..		
	Deaths .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 1	
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	4 }	2 }	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
PERRY BARR.* 2,416. 50.0.	Cases .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 1	
	Deaths .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	4 }	2 }	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		
	Cases .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..		





**URBAN—continued.**

District, Population, Percentage of Cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phtisis.	Other Tubercu- lous Dis- eases.	Acute Polymyellitis.	Cerebro-spin 1	Meningitis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
SHORT HEATH.* 4,205. Nil.	Cases .....	Under 5 .... 5 & upwards	2 10	2	..	..	..	..	..	..	..	11	1 4						
	Deaths .....	Under 5 .... 5 & upwards	..	..	..	..	..	..	..	..	..	3	1 1	..	..	..	..	2	1
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards																	
SMALLTHORNE.* 14,178. 77.7.	Cases .....	Under 5 .... 5 & upwards	20 23	7 12	..	1	..	..	..	..	3 12	20	3						
	Deaths .....	Under 5 .... 5 & upwards	..	1	..	..	..	..	..	..	1 1	12	2 ..	..	..	..	..	4	10 1
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	36	12	..	1													
STAFFORD.* 22,676. 80.0.	Cases .....	Under 5 .... 5 & upwards	3 22	10	..	5	..	..	..	..	2 9	67							
	Deaths .....	Under 5 .... 5 & upwards	..	..	..	..	..	..	..	..	..	1 26	1 2	..	..	..	..	1	
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	24	6	..	2													
STONE.* 5,690. 100.0.	Cases .....	Under 5 .... 5 & upwards	2	11	..	..	..	..	1	..	2	11	4						
	Deaths .....	Under 5 .... 5 & upwards	..	..	..	..	..	..	..	..	1	9	..	..	..	..	..	1	
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	2	11															





**URBAN—continued.**

District, Population, Percentage of Cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	(Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Other Tuber- culous Dis- eases.	Acute Polymyelitis.	Cerebro-spin <sup>1</sup> Meningitis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
WEDNESBURY.* 28,474. Nil.	Cases ..	Under 5 .... 5 & upwards	9 14	3 9	.. ..	.. 6	.. ..	.. ..	.. 3	.. ..	4 32	14 60	14 12	4 ..	.. ..	.. ..	5 ..	
	Deaths .....	Under 5 .... 5 & upwards	1 1	3 1	.. ..	.. 2	.. ..	.. ..	.. ..	.. ..	1 1	2 31	12 2	.. ..	.. ..	.. ..	66 6	6
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards																
	Cases .....	Under 5 .... 5 & upwards	3 14	1 5	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	8 ..	1 18	2 6	.. ..	.. ..	.. ..	1 ..	
WEDNESFIELD.* 6,873. Nil.	Deaths .....	Under 5 .... 5 & upwards	1 1	1 ..	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	.. ..	7 ..	.. ..	.. ..	.. ..	.. ..	5 1	2
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards																
	Cases .....	Under 5 .... 5 & upwards																
	Cases .....	Under 5 .... 5 & upwards	50 130	1 8	.. ..	1 ..	.. ..	.. ..	.. ..	.. ..	9 ..	77 15	4 15	.. ..	.. ..	.. ..	4 ..	
WILLENHALL.* 18,923. Nil.	Deaths .....	Under 5 .... 5 & upwards	3 2	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 ..	19 ..	4 1	.. ..	.. ..	.. ..	26 5	
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards																
	Cases .....	Under 5 .... 5 & upwards	16 37	6 38	.. ..	4 ..	.. ..	.. ..	1 ..	.. ..	9 ..	1 40	2 14	.. ..	.. ..	2 ..		
	Deaths .....	Under 5 .... 5 & upwards	.. ..	3 7	.. ..	2 ..	.. ..	.. ..	.. ..	.. ..	.. ..	2 21	3 4	.. ..	.. ..	.. ..	1 ..	7
WOLSTANTON.* 28,459. 76.2.	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	41	34	..	2												



**RURAL—continued.**

District, Population, Percentage of Cases treated in Hospital.		Smallpox.	Scarlatina.	Diphtheria (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Other Tuber- culous Dis- eases.	Acute Polymyelitis.	Cerebro-spin I.	Meningitis.	Ophthalmia	Neonatorum.	Measles.	Whooping Cough.
KINGSWINFORD.*	Cases .....	Under 5 .... 5 & upwards	27 55	7 2	.. ..	.. 2	.. ..	.. ..	1 1	.. ..	1 16	2 32	6 9	.. ..	.. ..	.. ..	.. ..	3		
	Deaths .....	Under 5 .... 5 & upwards	3 1	3 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 14	1 1	.. ..	.. ..	.. ..	.. ..	.. ..	15 1	2
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	59	..	..	1														
	Cases .....	Under 5 .... 5 & upwards	4 25	3 12	.. ..	3	..	..	4	..	4	20	9	2						
LEEK.*	Deaths .....	Under 5 .... 5 & upwards	1 ..	4 ..	.. ..	.. ..	.. ..	.. ..	4 4	.. ..	.. ..	10	2 1	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	3
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	24	..	..	1														
	Cases .....	Under 5 .... 5 & upwards	26 63	8 21	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	5 27	1 27	3 14	.. ..	.. ..	.. ..	.. ..	1		
	Deaths .....	Under 5 .... 5 & upwards	1 ..	3 ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	1 15	2 2	.. ..	.. ..	.. ..	.. ..	.. ..	2 3	
LICHFIELD.*	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	40	8																
	Cases .....	Under 5 .... 5 & upwards	5 12																	
	Deaths .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	7	..	..	..	..	..	..	..	1
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards																		
MAYFIELD.*	Deaths .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..									
	Cases .....	Under 5 .... 5 & upwards																		
	Deaths .....	Under 5 .... 5 & upwards	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..	.. ..									
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards																		





**RURAL—continued.**

District, Population, Percentage of Cases treated in Hospital.			Smallpox.	Scarlatina.	Diphtheria, (including Membranous Croup).	Typhus Fever.	Enteric Fever.	Continued Fever.	Relapsing Fever.	Puerperal Fever.	Cholera.	Erysipelas.	Phthisis.	Other Tuber- culous Dis- eases.	Acute Polyomyelitis.	Cerebro-spin <sup>1</sup> Meningitis.	Ophthalmia Neonatorum.	Measles.	Whooping Cough.
STONE.* 14,490. 73.1.	Cases ... ..	Under 5 .... 5 & upwards	..	17	22	..	2	..	..	..	..	5	14	6					
	Deaths .....	Under 5 .... 5 & upwards	..	..	1	..	..	..	..	..	..	1	8						
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	..	12	16	..	2												
TAMWORTH.* 5,188. 77.2.	Cases .....	Under 5 .... 5 & upwards	..	8	15	..	..	..	..	..	..	..	9	3	7				
	Deaths .....	Under 5 .... 5 & upwards	..	2	..	..	..	..	..	..	..	..	..	2	1	..	..	..	1
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	..	19	13	..	2												
TUTBURY.* 9,075. 60.4.	Cases .....	Under 5 .... 5 & upwards	..	1	23	..	..	..	..	..	..	..	9	3	..	..	1		
	Deaths .....	Under 5 .... 5 & upwards	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	8
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	..	12	14														
UTTOXETER. 8,158. 20.0.	Cases .....	Under 5 .... 5 & upwards	..	1	1	..	..	..	..	1	..	6							
	Deaths .....	Under 5 .... 5 & upwards	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	2	1
	Cases treated in hos- pital .....	Under 5 .... 5 & upwards	..	1	1														





SUMMARY OF  
SANITARY INSPECTORS' WORK.

SUMMARY OF SANITARY INSPECTORS' WORK, 1913.

**URBAN.**

[illegible]

[illegible]





District, Population, &c.	Dwelling-houses and Schools.			Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakelhouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.
	Foul conditions	Structural defects.	Overcrowding.										Defective Traps.	No discor- nection.	Other faults.							
<b>HEATH TOWN (12,276).</b>																						
Inspections and Observations made	357		55		90		33	733		5115	35	2400				7	315		10		20	9740
Defects found .. .. .	439	6	...		1		2	3		292	19	88				1	67				70	1168
Informal notices by inspector .. .. .	254	6	...		1		2	3		125	19	70				1	17	16		70	752	
Formal notices by authority .. .. .	47	2	55		..		...	...		8	..	...				1	2	2		...	11	
Nuisances abated after notice by inspector .. .. .	470	4	...		1		2	3		62	19	88				...	15	16		70	898	
Ditto by authority .. .. .	464	2	55		..		...	...		74	...	95				1	2	2		...	888	
<b>KIDSGROVE (9,012).</b>																						
Inspections and observations made	197	45	27	13	37	53	57	25	42	103	387	31	43	18	3	7	12	37		13	...	1150
Defects found .. .. .	48	45	27	13	10	2	26	6	2	40	39	31	13	18	3	7	12	5		13	...	360
Informal notices by inspector .. .. .	42	39	27	13	10	2	26	6	2	37	39	31	13	18	3	7	12	5		13	...	345
Formal notices by authority .. .. .	6	6	...	...	...	...	...	...		3	...	...	...	...		...	...	...		...	15	
Nuisances abated after notice by inspector .. .. .	42	39	27	13	10	2	26	6	2	37	39	31	13	18	3	7	12	5		13	...	345
Ditto by authority .. .. .	6	6	...	...	...	...	...	...		3	...	...	...	...		...	...	...		...	15	
<b>LEEK (16,945).</b>																						
Inspections and observations made	2	28	240	...	208	48	56	46	354	4	124	12	19	24	...	6	...	...	3	4	27	1215
Defects found .. .. .	2	23	58	...	...	...	...	3	2	...	124	12	19	24	...	6	...	...	3	4	27	312
Informal notices by inspector .. .. .	2	28	58	...	...	...	...	3	2	...	124	12	19	24	...	6	...	...	3	4	27	312
Formal notices by authority .. .. .	...	...	58	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	58	
Nuisances abated after notice by inspector .. .. .	2	28	...	...	...	...	...	3	2	...	124	12	19	24	...	6	...	...	3	4	27	254
Ditto by authority .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...		...	...	...	...	...	...	







**URBAN—continued**

District, Population, &c.	Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops	Cowsheds.	Bakehouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure.	House drainage.			Water supply.	Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.			
	Foul conditions	Structural defects.	Overcrowding.	Unfit for habitation.																					
QUARRY BANK (7,508).																									
Inspections and observations made	78	135	52	270	...	74	85	54	56	...	874	29	45	30	10	74	42	55	10	45	15	2013			
Defects found .. ..	47	58	15	165	...	4	3	1	3	...	49	7	10	13	7	45	19	7	3	2	..	461			
Informal notices by inspector ..	30	50	3	83	...	4	3	1	3	...	40	7	10	10	7	36	...	7	3	2	..	296			
Formal notices by authority ..	17	8	12	25	...	...	...	...	...	...	6	...	...	6	...	9	19	...	...	...	..	102			
Nuisances abated after notice by inspector	29	50	3	79	...	4	3	1	3	...	40	7	10	6	7	35	...	7	3	2	..	289			
Ditto by authority .. ..	17	8	10	25	...	...	...	...	...	...	6	...	...	6	...	9	...	...	...	...	..	81			
ROWLEY REGIS (\$7,558).																									
Inspections and observations made	702	366	29	40	...	130	...	80	637	94	3478	23	340	3	2	299	3	1	23	...	...	50 6300			
Defects found .. ..	472	366	29	40	...	32	...	4	...	18	264	23	124	3	2	299	3	1	23	...	...	50 1753			
Informal notices by inspector ..	472	366	29	40	...	32	...	4	...	18	264	23	124	3	2	299	3	1	23	...	...	50 1753			
Formal notices by authority ..	208	209	11	35	...	..	...	1	...	...	133	2	31	2	..	14	1	...	9	...	...	10 756			
Nuisances abated after notice by inspector	234	143	18	...	...	32	...	3	...	16	102	19	93	1	2	283	2	1	13	...	...	41 1003			
Ditto by authority .. ..	109	113	6	35	...	..	...	...	...	...	87	2	22	1	1	12	1	...	8	...	...	4 400			
RUGELEY (4,518).																									
Inspections and observations made	...	...	...	1	...	...	...	...	...	...	18	...	7	9	...	11	3	...	1	...	...	13 63			
Defects found .. ..	...	...	...	1	...	...	...	...	...	...	18	...	7	9	...	10	3	...	1	...	...	13 62			
Informal notices by inspector ..	...	...	...	...	...	...	...	...	...	...	18	...	7	9	...	10	3	...	1	...	...	13 61			
Formal notices by authority ..	...	...	...	...	...	...	...	...	...	...	18	..	7	9	...	10	3	...	1	...	...	13 61			
Nuisances abated after notice by inspector	...	...	...	...	...	...	...	...	...	...	18	..	7	9	...	10	3	...	1	...	...	13 61			
Ditto by authority .. ..	...	...	...	...	...	...	...	...	...	...	18	..	7	9	...	10	3	...	1	...	...	13 61			
Precautions against infectious disease.																							1	18	18
Food and Drugs Act.																							...	...	...
Unwholesome food.																							15	...	...
Samples taken for analysis.																							...	...	...
Number found adulterated, &c.																							...	...	...
Proceedings taken.																							...	...	...
Number of convictions.																							...	...	...
Samples of water taken for analysis.																							1	100	210
Lots of infected bedding disinfected or destroyed.																							...	...	...
Houses disinfected after infectious disease.																							...	...	...
Schools disinfected after infectious disease.																							...	...	...
Prosecutions for not notifying existence of infectious disease.																							...	...	...
Convictions for not notifying existence of infectious disease.																							...	...	...
Prosecutions for exposure of infected persons or things.																							...	...	...
Convictions for exposure of infected persons or things.																							...	...	...





District, Population, &c.	Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops	Cowsheds.	Bakelhouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure.	Water-closets.	House drainage.			Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances	Totals.	Unwholesome food.				Food and Drugs Act.				Precautions against infectious disease.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																											
	Foul conditions	Structural defects.	Overcrowding.	Unit for habitation.										Defective Traps.	No discon- nection	Other faults.							Water supply.	Prosecutions for exposing for sale.	Condemned by Magistrate.	Prosecutions for exposing for sale.	Samples taken for analysis.	Number found adulterated, &c.	Proceedings taken.	Number of convictions.	Samples of water taken for analysis.	Samples of water condemned as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																			
STAFFORD (22,676).					95	45	54	235	451	9																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																</





District, Population, &c.	Dwelling-houses and Schools.			Lodging-houses	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughter-houses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.
	Foul conditions	Structural defects.	Overcrowding.	Unfit for habitation.									Defective Traps.	No discon- nection.	Other faults.							
<b>WEDNESBURY (28,474).</b>																						
Inspections and observations made	4503		237	95	50	38	119	497	8	513	13	21	160			10	27	21	...	...	67	6379
Defects found .. .. .	63		67	1 ...	...	10	2 ...	...	3	79	3	36	32			1	5	7	...	...	25	334
Informal notices by inspector ..	47		67	1 ...	...	2	1 ...	...	3	54	3	36	32			1	5	7	...	...	25	284
Formal notices by authority ..	27		67	...	...	8	1 ...	...	...	33	2	6	23			...	...	...	...	...	...	167
Nuisances abated after notice by inspector	41		11	1 ...	...	2	1 ...	...	3	33	3	30	30			1	5	7	...	...	25	211
Ditto by authority .. .. .	27		47	...	...	8	1 ...	...	...	31	2	5	25			...	...	...	...	...	...	146
<b>WEDNESFIELD (6,873).</b>																						
Inspections and observations made	290		22	290	22	29	2	4	...	252	8	180	2	...	...	51	41	...	...	1	...	1194
Defects found .. .. .	34		8	34	1	6	...	...	...	52	3	55	2	...	...	4	13	...	...	...	...	212
Informal notices by inspector ..	...		...	...	1	6	...	...	...	...	3	55	2	...	...	...	...	...	...	...	...	67
Formal notices by authority ..	34		8	34	...	...	...	...	...	52	...	...	...	...	...	2	13	...	...	...	...	143
Nuisances abated after notice by inspector	...		...	...	1	6	...	...	...	...	3	55	2	...	...	...	...	...	...	...	...	67
Ditto by authority .. .. .	34		8	34	...	...	...	...	...	52	...	...	...	...	...	2	13	...	...	...	...	143
<b>WILLENHALL (18,923).</b>																						
Inspections and observations made	137	191	53	27	19	13	44	144	...	365	51	339	12	1	35	3	39	11	...	15	87	1599
Defects found .. .. .	113	125	30	6	...	3	6	10	...	39	15	129	10	...	22	2	1	7	...	4	54	586
Informal notices by inspector ..	104	124	29	4	...	3	6	10	...	39	15	128	10	...	20	2	1	7	...	4	54	560
Formal notices by authority ..	6	11	6	4	...	...	...	...	...	8	1	2	1	...	9	...	...	2	...	...	5	55
Nuisances abated after notice by inspector	94	118	29	...	...	3	6	10	...	26	15	128	9	...	19	2	1	6	...	4	51	521
Ditto by authority .. .. .	3	4	6	1	...	...	...	...	...	7	1	1	...	...	9	...	...	2	...	...	5	39

URBAN—continued

District, Population, &c.	Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops	Cowsheds.	Bakehouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances	Totals.		
	Foul conditions	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No discon- nection	Other faults.									
WOLSTANTON (28,459).																									
Inspections and observations made	16	101	5	...	...	138	...	59	351	...	386	10	124	450	...	...	...	62	...	...	...	...	5180		
Defects found .. ..	16	101	5	...	...	31	...	6	6	...	443	5	29	221	...	...	...	5	...	...	...	...	868		
Informal notices by inspector ..	16	81	5	...	...	25	...	6	6	...	422	5	29	209	...	...	...	5	...	...	...	...	809		
Formal notices by authority ..	...	20	...	...	...	6	...	...	...	...	21	...	...	12	...	...	...	...	...	...	...	...	59		
Nuisances abated after notice by inspector	16	81	2	...	...	25	...	6	6	...	416	5	29	209	...	...	...	5	...	...	...	...	794		
Ditto by authority ..	...	...	...	...	...	2	...	...	...	...	14	...	...	..	...	...	...	...	...	...	...	...	16		
												Unwholesome food.				Food and Drugs Act.				Precautions against infectious disease.					
												No. of Seizures.				Samples taken for analysis.				Lots of infected bedding disinfected or destroyed.					
												Condemned by Magistrate.				Proceedings taken.				Prosecutions for not notifying existence of infectious disease.					
												Convictions for exposing for sale.				Number found adulterated, &c.				Prosecutions for exposure of infected persons or things.					
												Convictions for exposing for sale.				Samples taken for analysis.				Prosecutions for not notifying existence of infectious disease.					
												Convictions for exposing for sale.				Number of convictions.				Prosecutions for exposure of infected persons or things.					
												Samples of water taken for analysis.				Samples of water condemned as unfit for use.				Convictions for exposure of infected persons or things.					



## RURAL.

District, Population, &c.	Dwelling-houses and Schools.						Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals in- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.
	Foul conditions	Structural defects.	Overcrowding.	Unit for habitation.													Defective Traps.	No discom- nection.	Other faults.						
BLORE HEATH (2,322).																									
Inspections and observations made		47					15	20	4			2	41				70		145	22	2			10	378
Defects found .. .. .	1   19   2   1						2	7					11				47		40	7	2			6	145
Informal notices by inspector .. .. .	10						2	4					8				13		27	6	1		4		75
Formal notices by authority .. .. .	2												1				4		11						18
Nuisances abated after notice by inspector .. .. .	13						2	7					7				25		23	5	2		5		89
Ditto by authority .. .. .	2												1				3		10						16
CANNOCK (20,247).																									
Inspections and observations made	1019 ...	18	10				98	47	132	31	245	3					228		30	31	3				1895
Defects found .. .. .	286   505   18						38	5	8	5	180	1					136		18	31	3				1238
Informal notices by inspector } Formal notices by authority }																									73
Nuisances abated after notice by inspector .. .. .	275	307	6	8			34	5	8	5	8072	1	21				90		12		3			43	8890
Ditto by authority .. .. .																									
CHEADLE (27,197).																									
Inspections and observations made	784 ...	15		30			206			62	53	2673													3823
Defects found .. .. .	2	305	7	2			26	5	23	7	744	15	16				58		8	9	8	4			1261
Informal notices by inspector .. .. .	2	15	4				26	5	2	7	729	11	11				38		5	2					869
Formal notices by authority .. .. .		290	3	2					21		15	4	4				20		3	7	8	4			391
Nuisances abated after notice by inspector .. .. .	2	15	4						2	5	729	11	11				38		5	2					836
Ditto by authority .. .. .	270		3	2					21		15	4	4				20		2	7	8	4			370

**RURAL—continued.**

District, Population, &c.	Dwelling-houses and Schools.				Lodging-houses.	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure.	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.	Unwholesome food.				Food and Drugs Act.				Precautions against infectious disease.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																						
	Foul conditions	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No discon- nection-	Other faults.								No. of Seizures.	Condemned by Magistrate.	Prosecutions for exposing for sale.	Convictions for exposing for sale.	Samples taken for analysis.	Number found adulterated, &c.	Proceedings taken.	Number of convictions.	Samples of water taken for analysis.	as unfit for use.	Lots of infected bedding disinfected or destroyed.	Houses disinfected after infectious disease.	Schools disinfected after infectious disease.	Prosecutions for not notifying existence of infectious disease.	Convictions for not notifying existence of infectious disease.	Prosecutions for exposure of infected persons or things.	Convictions for exposure of infected persons or things.																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																																														
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District, Population, &c.	Dwelling-houses and Schools.				Lodging-houses	Dairies and Milkshops.	Cowsheds.	Bakehouses.	Slaughterhouses.	Canal Boats.	Ashpits and Privies.	Deposits of refuse and manure	Water-closets.	House drainage.			Water supply.	Pigsties.	Animals im- properly kept.	Offensive trades.	Smoke nuisances.	Other nuisances.	Totals.
	Foul conditions	Structural defects.	Overcrowding.	Unfit for habitation.										Defective Traps.	No discon- nection.	Other faults.							
LICHFIELD (28,215).	180				...	260	...	80	20	115	400	15	400	474	474	17	474	17	...	...	5	2620	35
Inspections and observations made	21	142	5	10	...	8	7	4	15	86	15	46	112	112	23	23	17	...	...	5	516	39	
Defects found .. .. .	21	142	5	10	...	8	7	4	15	86	15	46	112	112	23	23	17	...	...	5	516	463	
Informal notices by inspector ..	...	13	...	10	...	..	...	...	...	4	...	6	6	...	...	...	...	...	...	...	...	...	
Formal notices by authority ..	21	116	5	..	...	7	7	4	15	82	15	40	106	106	23	23	17	...	...	5	463	...	
Nuisances abated after notice by inspector }	10	...	10	...	...	..	...	...	...	4	...	5	6	...	...	...	...	...	...	...	...	...	
Ditto by authority .. .. .	...	...	...	...	...	..	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
MAYFIELD (3,882).	85				...	94	...	...	1	...	72	5	16	72	30	13	...	...	...	3	391	78	
Inspections and observations made	2	11	2	...	...	18	...	...	...	12	5	...	12	12	13	13	...	...	...	3	78	65	
Defects found .. .. .	2	11	2	...	...	18	...	...	...	12	5	...	12	...	...	...	...	...	...	...	...	...	
Informal notices by inspector ..	...	...	...	...	...	..	...	...	...	...	...	...	...	..	...	...	...	...	...	...	...	...	
Formal notices by authority ..	2	8	1	...	...	15	...	...	...	8	5	...	10	10	...	...	...	...	...	3	52	...	
Nuisances abated after notice by inspector }	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
Ditto by authority .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	
NEWCASTLE (6,385).	680				...	56	12	22	...	...	...	...	...	...	11	6	...	...	...	...	...	...	
Inspections and observations made	30	16	4	...	...	16	1	4	...	8	...	2	...	...	6	2	4	...	...	...	...	...	
Defects found .. .. .	24	6	1	...	...	..	...	...	...	2	...	...	...	...	2	...	4	...	...	...	...	...	
Informal notices by inspector ..	6	10	3	...	...	16	...	...	...	6	...	2	...	4	2	...	...	...	...	...	...	...	
Formal notices by authority ..	15	6	1	...	...	..	...	...	...	2	...	...	...	2	...	...	4	...	...	...	...	...	
Nuisances abated after notice by inspector }	5	7	3	...	...	9	...	...	...	4	...	2	...	...	4	1	...	...	...	...	...	...	
Ditto by authority .. .. .	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	...	









